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Statistical Supplement to Household Food Security in the United States in 2017

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Note to Readers

This Supplement provides statistics that complement those in *Household Food Security in the United States in 2017* (ERR-256). 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. This 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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Errata

On September 17, 2020, Table S9 was revised to correct errors in row labels. Values in the table are unchanged but are now correctly labeled for 8 items from the food security questionnaire: Relied on few kinds of low cost food to feed children; Couldn't feed child(ren) balanced meals; Child(ren) were not eating enough; Adult(s) cut size of meals or skipped meals; Respondent ate less than felt he/she should; Respondent hungry but didn't eat because couldn't afford; Respondent lost weight; Adult(s) did not eat for whole day.

Statistical Supplement to Household Food Security in the United States in 2017

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 2017* (Coleman-Jensen et al., 2018), 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 2017. Information about the survey, data, and methods is available in *Household Food Security in the United States in 2017*. 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 experience episodes of food insecurity, or even very low food security, even though their annual incomes are 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 2017, 65.5 percent of households with incomes below 130 percent of the poverty line were food secure, while 34.5 percent were food insecure.

²The Federal poverty line was \$24,858 annual income for a family of four in 2017 (two adults and two children). Households with monthly income below 130 percent of the poverty line are eligible to receive SNAP (Supplemental Nutrition Assistance Program, formerly the Food Stamp Program) 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, 2017

	,,					Food i	nsecure		
Category	Total ¹ Food secure		A	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	17,271	11,318	65.5	5,953	34.5	3,387	19.6	2,566	14.9
Household composition:									
With children < 18 yrs	6,779	4,096	60.4	2,683	39.6	1,870	27.6	813	12.0
With children < 6 yrs	3,435	2,162	62.9	1,273	37.1	939	27.3	334	9.7
Married-couple families	2,737	1,854	67.7	883	32.3	640	23.4	243	8.9
Female head, no spouse	3,242	1,769	54.6	1,473	45.4	993	30.6	480	14.8
Male head, no spouse	669	400	59.8	269	40.2	196	29.3	73	10.9
Other household with child ²	132	74	56.1	58	43.9	NA	NA	NA	NA
With no children < 18 yrs	10,492	7,221	68.8	3,271	31.2	1,517	14.5	1,754	16.7
More than one adult	4,175	2,923	70.0	1,252	30.0	619	14.8	633	15.2
Women living alone	3,654	2,557	70.0	1,097	30.0	464	12.7	633	17.3
Men living alone	2,662	1,741	65.4	921	34.6	434	16.3	487	18.3
With elderly	4,580	3,475	75.9	1,105	24.1	606	13.2	499	10.9
Elderly living alone	2,501	1,988	79.5	513	20.5	271	10.8	242	9.7
Race/ethnicity of households:									
White, non-Hispanic	8,087	5,515	68.2	2,572	31.8	1,317	16.3	1,255	15.5
Black, non-Hispanic	3,631	2,111	58.1	1,520	41.9	868	23.9	652	18.0
Hispanic ³	4,234	2,774	65.5	1,460	34.5	969	22.9	491	11.6
Other, non-Hispanic	1,318	916	69.5	402	30.5	233	17.7	169	12.8
Area of residence:4									
Inside metropolitan area	13,929	9,113	65.4	4,816	34.6	2,765	19.9	2,051	14.7
In principal cities ⁵	5,835	3,663	62.8	2,172	37.2	1,236	21.2	936	16.0
Not in principal cities	5,552	3,810	68.6	1,742	31.4	949	17.1	793	14.3
Outside metropolitan area	3,341	2,204	66.0	1,137	34.0	622	18.6	515	15.4
Census geographic region:									
Northeast	2,623	1,827	69.7	796	30.3	488	18.6	308	11.7
Midwest	3,574	2,346	65.6	1,228	34.4	625	17.5	603	16.9
South	7,251	4,555	62.8	2,696	37.2	1,565	21.6	1,131	15.6
West	3,822	2,588	67.7	1,234	32.3	709	18.6	525	13.7

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 24 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 (0.6 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 later 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 18 percent of low-income households in metropolitan statistical areas.

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, 2017

					In fo	ood-insecu	ıre househ	olds	
Category	Total ¹	In food-secure households		All		In households with low food security		very lo	holds with ow food curity
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All individuals in households	320,418	280,374	87.5	40,044	12.5	27,159	8.5	12,885	4.0
Household composition:									
With children < 18 yrs	157,871	133,070	84.3	24,801	15.7	18,672	11.8	6,129	3.9
With children < 6 yrs	70,769	58,860	83.2	11,909	16.8	9,045	12.8	2,864	4.0
Married-couple families	109,651	98,411	89.7	11,240	10.3	8,936	8.1	2,304	2.1
Female head, no spouse	34,732	23,883	68.8	10,849	31.2	7,669	22.1	3,180	9.2
Male head, no spouse	11,246	8,954	79.6	2,292	20.4	1,737	15.4	555	4.9
Other household with child ²	2,242	1,821	81.2	421	18.8	331	14.8	90	4.0
With no children < 18 yrs	162,547	147,305	90.6	15,242	9.4	8,486	5.2	6,756	4.2
More than one adult	126,324	116,023	91.8	10,301	8.2	6,004	4.8	4,297	3.4
Women living alone	19,963	17,195	86.1	2,768	13.9	1,362	6.8	1,406	7.0
Men living alone	16,260	14,087	86.6	2,173	13.4	1,120	6.9	1,053	6.5
With elderly	75,412	68,531	90.9	6,881	9.1	4,445	5.9	2,436	3.2
Elderly living alone	14,312	13,078	91.4	1,234	8.6	710	5.0	524	3.7
Race/ethnicity of households:									
White, non-Hispanic	200,889	182,605	90.9	18,284	9.1	11,708	5.8	6,576	3.3
Black, non-Hispanic	39,354	30,601	77.8	8,753	22.2	5,725	14.5	3,028	7.7
Hispanic ³	54,345	44,080	81.1	10,265	18.9	7,788	14.3	2,477	4.6
Other, non-Hispanic	25,829	23,088	89.4	2,741	10.6	1,937	7.5	804	3.1
Household income-to-poverty ratio	o:								
Under 1.00	33,929	20,656	60.9	13,273	39.1	8,319	24.5	4,954	14.6
Under 1.30	46,724	29,886	64.0	16,838	36.0	10,675	22.8	6,163	13.2
Under 1.85	73,205	50,106	68.4	23,099	31.6	15,100	20.6	7,999	10.9
1.85 and over	172,376	162,712	94.4	9,664	5.6	7,155	4.2	2,509	1.5
Income unknown	74,836	67,557	90.3	7,279	9.7	4,903	6.6	2,376	3.2
Area of residence:4									
Inside metropolitan area	276,395	242,599	87.8	33,796	12.2	23,067	8.3	10,729	3.9
In principal cities ⁵	90,959	77,549	85.3	13,410	14.7	8,909	9.8	4,501	4.9
Not in principal cities	145,847	131,470	90.1	14,377	9.9	9,808	6.7	4,569	3.1
Outside metropolitan area	44,023	37,777	85.8	6,246	14.2	4,091	9.3	2,155	4.9
Census geographic region:									
Northeast	55,482	49,596	89.4	5,886	10.6	4,117	7.4	1,769	3.2
Midwest	67,063	58,962	87.9	8,101	12.1	5,304	7.9	2,797	4.2
South	121,533	104,211	85.7	17,322	14.3	11,886	9.8	5,436	4.5
West	76,340	67,606	88.6	8,734	11.4	5,851	7.7	2,883	3.8

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 2017, these exclusions represented about 829,000 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 later 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 14 percent of individuals living in metropolitan statistical areas.

Table S-3

Number of children by food security status of households and selected household characteristics, 2017

Category	Total ¹	In food-secure households		In food-insecure households ²		In households with food-insecure children ³		very lo security	In households with very low food security among children	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent	
All children	73,901	61,361	83.0	12,540	17.0	6,541	8.9	540	0.7	
Household composition:										
With children < 6 yrs	35,770	29,434	82.3	6,336	17.7	3,327	9.3	251	0.7	
Married-couple families	49,907	44,606	89.4	5,301	10.6	2,575	5.2	152	0.3	
Female head, no spouse	17,906	11,919	66.6	5,987	33.4	3,316	18.5	346	1.9	
Male head, no spouse	5,160	4,105	79.6	1,055	20.4	521	10.1	NA	NA	
Other household with child ⁴	927	730	78.7	197	21.3	129	13.9	NA	NA	
Race/ethnicity of households:										
White, non-Hispanic	41,218	36,088	87.6	5,130	12.4	2,579	6.3	221	0.5	
Black, non-Hispanic	10,329	7,542	73.0	2,787	27.0	1,456	14.1	156	1.5	
Hispanic ⁵	16,083	12,349	76.8	3,734	23.2	2,003	12.5	134	0.8	
Other, non-Hispanic	6,271	5,381	85.8	890	14.2	502	8.0	NA	NA	
Household income-to-poverty rati	o:									
Under 1.00	11,780	6,670	56.6	5,110	43.4	2,907	24.7	327	2.8	
Under 1.30	15,633	9,399	60.1	6,234	39.9	3,496	22.4	366	2.3	
Under 1.85	23,484	15,164	64.6	8,320	35.4	4,565	19.4	482	2.1	
1.85 and over	35,784	33,567	93.8	2,217	6.2	1,005	2.8	NA	NA	
Income unknown	14,633	12,629	86.3	2,004	13.7	971	6.6	NA	NA	
Area of residence:6										
Inside metropolitan area	63,890	53,320	83.5	10,570	16.5	5,526	8.6	457	0.7	
In principal cities ⁷	20,209	16,032	79.3	4,177	20.7	2,307	11.4	213	1.1	
Not in principal cities	34,718	30,269	87.2	4,449	12.8	2,326	6.7	158	0.5	
Outside metropolitan area	10,011	8,040	80.3	1,971	19.7	1,014	10.1	83	0.8	
Census geographic region:										
Northeast	11,806	10,052	85.1	1,754	14.9	920	7.8	NA	NA	
Midwest	15,651	13,078	83.6	2,573	16.4	1,352	8.6	154	1.0	
South	28,676	23,197	80.9	5,479	19.1	2,670	9.3	242	0.8	
West	17,768	15,033	84.6	2,735	15.4	1,599	9.0	61	0.3	

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 2017, these exclusions represented 226,000 children (0.3 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 later 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 14 percent of children living in metropolitan statistical areas.

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 2017 are directly comparable with those for 2005 and later years, but not with those reported for 2004 and earlier years.

An estimated 93.7 percent of households were food secure throughout the 30-day period from mid-November to mid-December 2017 (table S-4).⁴ An estimated 6.3 percent (8.0 million households) were food insecure at some time during that 30-day period, including 2.6 percent (3.3 million) with very low food security. The national-level prevalence rates of food insecurity and very low food security declined from the corresponding 30-day period in 2016 (6.7 percent and 2.8 percent, respectively). From 2016 to 2017, 30-day food insecurity declined for married couple families (from 4.9 percent to 4.1 percent) and households with incomes below 100 percent of the poverty line (from 23.2 percent to 21.4 percent). The prevalence of 30-day food insecurity declined significantly in nonmetropolitan areas (from 8.4 percent to 7.1 percent), and in the West (from 6.5 percent to 5.7 percent).

The prevalence of 30-day very low food security declined significantly from 2016 to 2017 in many subpopulations, including households with children (under age 18 and age 6), married-couple families, single-mother families, other households with children, men living alone, Black (non-Hispanic)-headed households, and in nonmetropolitan areas (see table S-4, Coleman-Jensen et al, 2017).

The number of households that were food insecure at some time during the 30 days from mid-November to mid-December 2017 (8,038,000 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 (15,018,000 households; Coleman-Jensen et al., 2018); the corresponding statistic for very low food security was 57 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. 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.

³For questions asking about the frequency of conditions or behaviors (items 5, 10, and 17), responses that indicated the described conditions occurred on at least 3 days of the previous 30 were counted as affirmative. See Nord (2002).

⁴The food security survey was conducted December 10-19, 2017.

⁵The 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, 2017¹

				Food insecure					
Category	Total ¹	Foods	secure	A	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 households	127,272	119,234	93.7	8,038	6.3	4,781	3.7	3,257	2.6
Household composition:									
With children < 18 yrs	37,942	34,904	92.0	3,038	8.0	2,244	5.9	794	2.1
With children < 6 yrs	16,200	14,902	92.0	1,298	8.0	968	6.0	330	2.0
Married-couple families	24,744	23,721	95.9	1,023	4.1	782	3.1	241	1.0
Female head, no spouse	9,561	7,931	83.0	1,630	17.0	1,183	12.3	447	4.7
Male head, no spouse	3,057	2,723	89.1	334	10.9	236	7.7	98	3.2
Other household with child ²	581	531	91.4	50	8.6	NA	NA	NA	NA
With no children < 18 yrs	89,330	84,329	94.4	5,001	5.6	2,538	2.8	2,463	2.8
More than one adult	53,107	50,910	95.9	2,197	4.1	1,138	2.1	1,059	2.0
Women living alone	19,963	18,385	92.1	1,578	7.9	780	3.9	798	4.0
Men living alone	16,260	15,034	92.5	1,226	7.5	620	3.8	606	3.7
With elderly	37,805	36,206	95.8	1,599	4.2	989	2.6	610	1.6
Elderly living alone	14,312	13,662	95.5	650	4.5	417	2.9	233	1.6
Race/ethnicity of households:									
White, non-Hispanic	84,548	80,556	95.3	3,992	4.7	2,232	2.6	1,760	2.1
Black, non-Hispanic	16,358	14,454	88.4	1,904	11.6	1,146	7.0	758	4.6
Hispanic ³	17,197	15,494	90.1	1,703	9.9	1,154	6.7	549	3.2
Other, non-Hispanic	9,169	8,730	95.2	439	4.8	250	2.7	189	2.1
Household income-to-poverty ratio):								
Under 1.00	12,871	10,111	78.6	2,760	21.4	1,452	11.2	1,308	10.2
Under 1.30	17,271	13,843	80.2	3,428	19.8	1,851	10.7	1,577	9.1
Under 1.85	27,012	22,273	82.5	4,739	17.5	2,665	9.8	2,074	7.7
1.85 and over	69,442	67,517	97.2	1,925	2.8	1,268	1.9	657	0.9
Income unknown	30,818	29,443	95.5	1,375	4.5	849	2.8	526	1.7
Area of residence:4									
Inside metropolitan area	108,977	102,237	93.8	6,740	6.2	4,097	3.8	2,643	2.4
In principal cities ⁵	37,365	34,640	92.7	2,725	7.3	1,583	4.2	1,142	3.1
Not in principal cities	55,330	52,459	94.8	2,871	5.2	1,820	3.3	1,051	1.9
Outside metropolitan area	18,295	16,997	92.9	1,298	7.1	684	3.7	614	3.4
Census geographic region:									
Northeast	22,520	21,452	95.3	1,068	4.7	684	3.0	384	1.7
Midwest	27,581	25,861	93.8	1,720	6.2	997	3.6	723	2.6
South	48,281	44,683	92.5	3,598	7.5	2,158	4.5	1,440	3.0
West	28,890	27,238	94.3	1,652	5.7	943	3.2	709	2.5

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 10-19, 2017. 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 2017, these exclusions represented 340,000 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 later 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.

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 Box S-1 on 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 (73.8 percent of households with children and 83.3 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 (10.5 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). 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).

⁶The 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, 2014-17¹

	Households affirming item ³					
Scale item ²	2014	2015	2016	2017		
		Per	cent			
Household items:						
Worried food would run out before (I/we) got money to buy more	18.7	17.0	16.2	15.6		
Food bought didn't last and (I/we) didn't have money to get more	15.5	14.1	13.3	12.8		
Couldn't afford to eat balanced meals	14.8	13.8	12.9	12.7		
Adult items:						
Adult(s) cut size of meals or skipped meals	8.7	7.8	7.5	7.0		
Respondent ate less than felt he/she should	8.8	7.9	7.7	7.2		
Adult(s) cut size or skipped meals in 3 or more months	6.7	6.0	5.7	5.3		
Respondent hungry but didn't eat because couldn't afford	4.8	4.2	4.0	3.7		
Respondent lost weight	2.8	2.5	2.4	2.4		
Adult(s) did not eat for whole day	1.7	1.6	1.7	1.4		
Adult(s) did not eat for whole day in 3 or more months	1.3	1.2	1.3	1.1		
Child items:						
Relied on few kinds of low-cost food to feed child(ren)	15.5	13.6	13.0	13.0		
Couldn't feed child(ren) balanced meals	9.9	8.4	8.3	8.2		
Child(ren) were not eating enough	4.5	3.6	3.6	3.3		
Cut size of child(ren)'s meals	2.2	1.7	1.7	1.5		
Child(ren) were hungry	1.4	0.9	1.0	0.8		
Child(ren) skipped meals	0.8	0.6	0.6	0.5		
Child(ren) skipped meals in 3 or more months	0.6	0.5	0.5	0.4		
Child(ren) did not eat for whole day	0.2	0.1	0.1	0.1		

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 xx 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.

Table S-6
Percentage of households by food security raw score, 2017

	: Households with children—1	8-Item household food secu	rity scale
Raw score (number of food-insecure conditions reported)	Percent of households ¹	Cumulative percent of households ¹	Food security status
0	73.75	73.75	
1	5.96	79.71	Food secure (84.27 percent)
2	4.56	84.27	(64.27 percent)
3	3.56	87.83	
4	2.69	90.52	Law facel accomity
5	2.27	92.79	Low food security (11.66 percent)
6	1.73	94.52	(11.00 percent)
7	1.41	95.93	
8	1.22	97.15	
9	0.85	98.00	
10	0.76	98.76	
11	0.36	99.12	
12	0.22	99.34	Very low food security
13	0.25	99.59	(4.07 percent)
14	0.19	99.78	(perce)
15	0.17	99.95	
16	0.01	99.96	
17	0.04	100.00	
18	0.00	100.00	
Pane	el B: Households with children		
0	85.53	85.53	Children food secure
1	6.76	92.29	(92.29 percent)
2	4.49	96.78	Low food security
3	1.91	98.69	among children (7.05 percent)
4	0.65	99.34	(7.05 percent)
5	0.29	99.63	Very low food security
6	0.14	99.77	among children
7	0.20	99.97	(0.66 percent)
8	0.03	100.00	
	C: Households with no childre		ty scale
0	83.29	83.29	Food secure
1	3.78	87.07	(89.87 percent)
2	2.80	89.87	
3	2.83	92.70	Low food security
4	1.43	94.13	(5.42 percent)
5	1.16	95.29	
6	1.55	96.84	
7	1.36	98.20	Very low food security
8	0.82	99.02	(4.71 percent)
9	0.28	99.30	
10	0.70	100.00	

¹Survey responses weighted to population totals.

Questions Used To Assess the Food Security of Households in the CPS Food Security Supplement

- 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 2017 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 13 to 27 percent (depending on the specific question) reported that it occurred "often."

In response to Method 2 questions, conditional on affirming the general question, 22 to 42 percent of respondents reported that the behavior, experience, or condition occurred "in almost every month;" 36 to 54 percent reported that it occurred in "some months, but not every month;" and 21 to 25 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, 2017¹

	Fuor during	Frequency of occurrence					
Condition ²	Ever during - the year	Often	Sometimes	Often	Sometimes		
	—— Percer	—— Percent of all households —— ever during "ever during"					
Worried food would run out before (I/we) got money to buy more	15.6	3.8	11.8	25.0	75.0		
Food bought didn't last and (I/we) didn't have money to get more	12.8	2.7	10.2	21.0	79.0		
Couldn't afford to eat balanced meals	12.7	3.4	9.4	27.0	73.0		
Relied on few kinds of low-cost food to feed child(ren)	13.0	2.5	10.4	19.0	81.0		
Couldn't feed child(ren) balanced meals	8.2	1.1	7.1	14.0	86.0		
Child(ren) were not eating enough	3.3	0.4	2.8	13.0	87.0		

		Frequency of occurrence							
Condition ²	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		
	—— Pe	—— Percent of all households —— "eve					Percent of r during the year"		
Adult(s) cut size of meals or skipped meals	7.0	2.4	2.9	1.7	35	41	24		
Respondent ate less than felt he/she should	7.1	2.1	3.2	1.8	30	45	25		
Respondent hungry but didn't eat because couldn't afford	3.7	1.4	1.5	0.8	37	41	23		
Respondent lost weight	2.4	NA	NA	NA	NA	NA	NA		
Adult(s) did not eat for whole day	1.4	0.6	0.5	0.3	42	36	23		
Cut size of child(ren)'s meals	1.5	0.3	0.8	0.3	22	54	23		
Child(ren) were hungry	0.8	0.2	0.4	0.2	26	53	21		
Child(ren) skipped meals	0.5	0.2	0.3	0.1	29	46	25		
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."

Table S-8

Frequency of occurrence of behaviors, experiences, and conditions indicating food insecurity reported by households with very low food security, 2017¹

	Г	Frequen Ever during ————				ncy of occurrence			
Condition ²		r during — e year	Often	n Sometimes		Often	Sometimes		
	_	-— Percen	t of all hous	eholds ——	- "ε	Percent of "ever during the year"			
Worried food would run out before (I/we) got mone to buy more		98.5	49.0	49.5	5	50	50		
Food bought didn't last and (I/we) didn't have mon to get more	•	96.6	40.7	55.9	9	42	58		
Couldn't afford to eat balanced meals		95.1	44.6	50.4	4	47	53		
Relied on few kinds of low-cost food to feed child(ren)	90.2	31.7	58.6	3	35	65		
Couldn't feed child(ren) balanced meals		80.1	18.6	61.5	5	23	77		
Child(ren) were not eating enough		49.3	9.3	39.9	9	19	81		
			F	requency of	foccurren	ce			
Condition ²	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		
	—— P	ercent of a	II household	ds ——	"eve	Percent or or during th			
Adult(s) cut size of meals or skipped meals	96.1	45.7	42.1	8.3	48	44	9		
Respondent ate less than felt he/she should	93.3	40.6	42.1	10.6	43	45	11		
Respondent hungry but didn't eat because couldn't afford	67.6	28.6	27.8	11.1	42	41	16		
Respondent lost weight	47.5	NA	NA	NA	NA	NA	NA		
Adult(s) did not eat for whole day	29.6	13.2	10.9	5.5	45	37	18		
Cut size of child(ren)'s meals	28.6	7.7	15.1	5.9	27	53	21		
Child(ren) were hungry	18.8	4.5	10.9	3.5	24	58	18		

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

Child(ren) skipped meals

Child(ren) did not eat for whole day

3.9

NA

5.9

NA

3.1

NA

31

NA

45

NA

24

NA

12.9

2.0

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."

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-9.⁷

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 26 to 31 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 22 to 24 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 2017* (Coleman-Jensen et al., 2018).

⁷Average 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, 2017

		For house	- Average			
Condition ²	Ever during previous 30	Number of days out of previo 30 days			Monthly - average	daily prevalence
	days	1- 7 days	8-14 days	15-30 days	occurrence	
		Per	cent ³ ———		Days ³	Percent ³
Worried food would run out before (I/we) got money to buy more	7.30	NA	NA	NA	NA	NA
Food bought didn't last and (I/we) didn't have money to get more	6.56	NA	NA	NA	NA	NA
Couldn't afford to eat balanced meals	7.13	NA	NA	NA	NA	NA
Adult(s) cut size of meals or skipped meals	4.51	66	16	18	7.9	1.19
Respondent ate less than felt he/she should	4.23	58	17	25	9.4	1.33
Respondent hungry but didn't eat because couldn't afford food	2.43	60	18	22	8.9	0.72
Respondent lost weight	1.46	NA	NA	NA	NA	NA
Adult(s) did not eat for whole day	0.91	64	13	23	8.0	0.24
Relied on few kinds of low-cost food to feed child(ren)	6.79	NA	NA	NA	NA	NA
Couldn't feed child(ren) balanced meals	4.31	NA	NA	NA	NA	NA
Child(ren) were not eating enough	1.65	NA	NA	NA	NA	NA
Cut size of child(ren)'s meals	0.90	64	18	18	7.5	0.22
Child(ren) were hungry	0.58	67	15	18	7.1	0.14
Child(ren) skipped meals	0.36	69	20	11	6.8	0.08
Child(ren) did not eat for whole day	0.08	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 10-19, 2017.

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.

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, 2017

	Median weekly food spending relative to TFP ¹			
Category	Food secure	Food insecure		
	Ratio (cost of TFP = 1.0)			
All households	1.28	1.04		
Household composition:				
With children < 18 yrs	1.16	0.95		
At least one child < 6 yrs	1.18	0.95		
Married-couple families	1.18	0.97		
Female head, no spouse	1.10	0.92		
Male head, no spouse	1.06	0.99		
Other household with child ²	1.11	NA		
With no children < 18 yrs	1.34	1.11		
More than one adult	1.24	0.96		
Women living alone	1.37	1.11		
Men living alone	1.71	1.17		
With elderly	1.20	1.01		
Elderly living alone	1.34	1.11		
Race/ethnicity of households:				
White, non-Hispanic	1.34	1.09		
Black, non-Hispanic	1.13	0.98		
Hispanic ³	1.16	0.98		
Other, non-Hispanic	1.20	1.07		
Household income-to-poverty ratio:				
Under 1.00	1.01	0.92		
Under 1.30	1.01	0.93		
Under 1.85	1.03	0.95		
1.85 and over	1.43	1.22		
Income unknown	1.19	1.03		
Area of residence: ⁴				
Inside metropolitan area	1.31	1.07		
In principal cities ⁵	1.33	1.06		
Not in principal cities	1.32	1.08		
Outside metropolitan area	1.15	0.96		
·	0	0.00		
Census geographic region: Northeast	1.34	1.07		
Midwest	1.21	1.07		
South	1.25	1.04		
West	1.33	1.02		

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

Note: These estimates are based on categorical food spending data rather than continuous data as was used in reports prior to 2016. 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.

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 8 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 later 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.

Use of Food Pantries and Emergency Kitchens

The December 2017 CPS food security survey included questions about the use of two types of community-based food and nutrition assistance programs (see box, "Community Food and Nutrition Assistance Programs," on page 21 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 2017. 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 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.⁸

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.

⁸Previous 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).

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). Pantries and kitchens play different roles. Food pantries distribute unprepared foods for offsite use, and emergency kitchens (sometimes referred to as soup kitchens) provide individuals with prepared food to eat at the site. 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 2017, TEFAP supplied 709.4 million pounds of commodities to community emergency food providers.

Table S-11
Use of food pantries and emergency kitchens, 2017

	Pantries			Kitchens		
Category	Total ¹	Users		Total ¹ Use		sers
	1,000	1,000	Percent	1,000	1,000	Percent
All households	126,724	5,919	4.7	126,736	726	0.6
All persons in households	319,023	15,917	5.0	319,093	1,508	0.5
Adults in households	245,559	10,923	4.4	245,622	1,147	0.5
Children in households	73,464	4,994	6.8	73,471	361	0.5
Households by food security status:						
Food-secure households	111,889	2,064	1.8	111,895	242	0.2
Food-insecure households	14,811	3,849	26.0	14,794	483	3.3
Households with low food security	9,140	1,909	20.9	9,138	176	1.9
Households with very low food security	5,671	1,939	34.2	5,656	308	5.5

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, 2017 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, 2017

		Food insecure		
	Food		With low	With very low
Category	secure	All	food security	food security
			Percent	
Income less than 185 percent of poverty line:				
Received emergency food from food pantry previous 12 months	34.5	65.5	31.2	34.3
Did not receive emergency food from food pantry previous 12 months	75.6	24.4	15.7	8.7
Ate meal at emergency kitchen previous 12 months	34.6	65.4	24.1	41.3
Did not eat meal at emergency kitchen previous 12 months	70.1	29.9	17.9	12.0

Table S-13
Use of food pantries, by selected household characteristics, 2017

Category	Total ¹	Pant	ry users
	1,000	1,000	Percent
All households	126,724	5,919	4.7
Household composition:			
With children < 18 yrs	37,736	2,317	6.1
At least one child < 6 yrs	16,095	1,040	6.5
Married-couple families	24,651	805	3.3
Female head, no spouse	9,474	1,208	12.8
Male head, no spouse	3,030	241	8.0
Other household with child ²	581	62	10.7
With no children < 18 yrs	88,987	3,602	4.0
More than one adult	52,947	1,591	3.0
Women living alone	19,847	1,206	6.1
Men living alone	16,193	806	5.0
With elderly	37,676	1,313	3.5
Elderly living alone	14,257	615	4.3
Race/ethnicity of households:			
White, non-Hispanic	84,294	2,942	3.5
Black, non-Hispanic	16,213	1,521	9.4
Hispanic ³	17,111	1,118	6.5
Other, non-Hispanic	9,106	339	3.7
Household income-to-poverty ratio:			
Under 1.00	12,707	2,663	21.0
Under 1.30	17,071	3,150	18.5
Under 1.85	26,761	4,119	15.4
1.85 and over	69,335	891	1.3
Income unknown	30,629	909	3.0
Area of residence: ⁴			
Inside metropolitan area	108,484	4,830	4.5
In principal cities ⁵	37,141	1,965	5.3
Not in principal cities	55,116	1,895	3.4
Outside metropolitan area	18,240	1,089	6.0
Census geographic region:			
Northeast	22,379	883	3.9
Midwest	27,462	1,533	5.6
South	48,093	2,185	4.5
West	28,790	1,318	4.6

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 later 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, 2017 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-14.9

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, 2017

Category	Median weekly food spending relative to cost of the TFP
	Ratio (cost of TFP = 1.0)
Income less than 130 percent of poverty line:	
Received SNAP ¹ benefits previous 30 days	0.92
Did not receive SNAP ¹ benefits previous 30 days	1.04
Income less than 185 percent of poverty line; school-age children in household:	
Received free or reduced-price school lunch previous 30 days	0.88
Did not receive free or reduced-price school lunch previous 30 days	0.91
Income less than 185 percent of poverty line; children under age 5 in household:	
Received WIC ² previous 30 days	0.92
Did not receive WIC ² previous 30 days	0.92
Income less than 185 percent of poverty line:	
Received emergency food from food pantry previous 12 months	0.89
Did not receive emergency food from food pantry previous 12 months	1.02

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

Note: These estimates are based on categorical food spending data rather than continuous data as was used in reports prior to 2016. 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.

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

⁹Food purchased with SNAP 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 2017* (Coleman-Jensen et al., 2018), 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 is 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, 2017¹

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	29.2	13.7			
Received SNAP ² benefits in every month during the previous 12 months	30.0	14.4			
Received SNAP ² benefits previous 12 months but not previous 30 days (SNAP leavers)	28.4	13.3			
Did not receive SNAP ² benefits previous 12 months	13.3	6.0			
Income less than 185 percent of poverty line; school-age children in household:					
Received free or reduced-price school lunch previous 30 days	23.9	7.4			
Did not receive free or reduced-price school lunch previous 30 days	12.7	3.3			
Income less than 185 percent of poverty line; children under age 5 in house	hold:				
Received WIC ³ previous 30 days	21.3	6.4			
Did not receive WIC ³ previous 30 days	12.8	2.3			
Income less than 185 percent of poverty line:					
Received emergency food from food pantry previous 30 days	50.1	28.1			
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 10-19, 2017. 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.

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 2017

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
	Percent			
Received SNAP ² benefits previous 30 days	30.6	53.6	4.1	53.0
Received free or reduced-price school lunch previous 30 days	20.0	28.8	1.7	17.8
Received WIC ³ previous 30 days	20.7	10.0	NA	NA
Participated in one or more of the three Federal programs	24.2	65.5	3.0	58.6
Did not participate in any of the three Federal programs	9.1	34.6	1.5	41.4

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.

References

- Anderson, S.A. (ed.). 1990. "Core Indicators of Nutritional State for Difficult-To-Sample Populations," *Journal of Nutrition* 120(11S):1557-1600. Report by the Life Sciences Research Office, Federation of American Societies for Experimental Biology, for the American Institute of Nutrition.
- Briefel, R., J. Jacobson, N. Clusen, T. Zavitsky, M. Satake, B. Dawsen, and R. Cohen. 2003. *The Emergency Food Assistance System—Findings From the Client Survey*, E-FAN-03-007, prepared by Mathematica Policy Research, Inc., for USDA, Economic Research Service.
- Cohen, Barbara, Mark Nord, Robert Lerner, James Parry, and Kenneth Yang. 2002. *Household Food Security in the United States, 1998 and 1999: Technical Report*, E-FAN-02-010, prepared by IQ Solutions and USDA, Economic Research Service.
- Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2017. Statistical Supplement to Household Food Security in the United States in 2016, AP-077, USDA, Economic Research Service.
- Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2018. Household Food Security in the United States in 2017, ERR-256, USDA, Economic Research Service.
- Gundersen, Craig, and Joseph Gruber. 2001. "The Dynamic Determinants of Food Insecurity," Margaret Andrews and Mark Prell (eds.), *Second Food Security Measurement and Research Conference, Volume II: Papers*, FANRR-11-2, pp. 92-110. USDA, Economic Research Service.
- Nord, Mark. 2002. A 30-Day Food Security Scale for Current Population Survey Food Security Supplement Data. E-FAN-02-015, USDA, Economic Research Service.
- Nord, Mark, Margaret Andrews, and F. Joshua Winicki. 2000. *Frequency and Duration of Food Insecurity and Hunger in U.S. Households*, presentation at the Fourth International Conference on Dietary Assessment Methods, Tucson, AZ, September 17-20, 2000.
- Nord, Mark, and C. Philip Brent. 2002. *Food Insecurity in Higher Income Households*. E-FAN-02-016, USDA, Economic Research Service.
- Nord, Mark, and Linda S. Kantor. 2006. "Seasonal Variation in Food Insecurity Is Associated with Heating and Cooling Costs among Low-Income Elderly Americans," *Journal of Nutrition* 136:2939-44.
- Nord, Mark, and Kathleen Romig. 2006. "Hunger in the Summer: Seasonal Food Insecurity and the National School Lunch and Summer Food Service Programs," *Journal of Children and Poverty* 12(2):141-58.
- Ohls, James, Fazana Saleem-Ismail, Rhoda Cohen, and Brenda Cox. 2002. *The Emergency Food Assistance System Study—Findings From the Provider Survey, Volume II: Final Report*, FANRR-16-2, prepared by Mathematica Policy Research, Inc., for USDA, Economic Research Service.

- Radimer, Kathy L., and Mark Nord. 2005. "Associations of Household, Adult, and Child Food Security with Health Conditions: National Health and Nutrition Examination Survey (NHANES) 1999-2002," presentation at the Experimental Biology annual research conference San Diego, CA, March 31-April 5, 2005.
- Wilde, Parke E., and Jerusha N. Peterman. 2006. "Individual Weight Change Is Associated with Household Food Security Status," *Journal of Nutrition* 136:1395-1400.
- Winicki, Joshua, and Kyle Jemison. 2003. "Food Insecurity and Hunger in the Kindergarten Classroom: Its Effect on Learning and Growth," *Contemporary Economic Policy* 21(2):145-56.