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Statistical Supplement to Household Food Security in the United States in 2015

Alisha Coleman-Jensen
Matthew P. Rabbitt
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Anita Singh



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Note to Readers

This supplement provides statistics that complement those in *Household Food Security in the United States in 2015* (ERR-215). 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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Statistical Supplement to Household Food Security in the United States in 2015

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 2015* (<http://www.ers.usda.gov/publications/err-economic-research-report/err215.aspx>), 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 2015. Information about the survey, data, and methods are available in *Household Food Security in the United States in 2015*. 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 Current Population Survey (CPS) Food Security 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 2015, 63.2 percent of households with incomes below 130 percent of the poverty line were food secure, while 36.8 percent were food insecure.

²The Federal poverty line was \$24,036 annual income for a family of four in 2015 (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 at or below 130 percent of poverty either annually or monthly.

Table S-1

Households with annual income below 130 percent of the poverty line by food security status and selected household characteristics, 2015

Category	Total ¹	Food secure		Food insecure					
		1,000	Percent	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	18,917	11,954	63.2	6,963	36.8	3,966	21.0	2,997	15.8
Household composition:									
With children < 18 yrs	7,827	4,608	58.9	3,219	41.1	2,254	28.8	965	12.3
With children < 6 yrs	4,055	2,450	60.4	1,605	39.6	1,213	29.9	392	9.7
Married-couple families	3,008	1,994	66.3	1,014	33.7	779	25.9	235	7.8
Female head, no spouse	3,947	2,110	53.5	1,837	46.5	1,263	32.0	574	14.5
Male head, no spouse	801	472	58.9	329	41.1	186	23.2	143	17.9
Other household with child ²	71	31	43.7	40	56.3	NA	NA	NA	NA
With no children < 18 yrs	11,090	7,346	66.2	3,744	33.8	1,712	15.4	2,032	18.3
More than one adult	4,453	3,023	67.9	1,430	32.1	670	15.0	760	17.1
Women living alone	3,839	2,544	66.3	1,295	33.7	576	15.0	719	18.7
Men living alone	2,798	1,781	63.7	1,017	36.3	465	16.6	552	19.7
With elderly	4,680	3,467	74.1	1,213	25.9	681	14.6	532	11.4
Elderly living alone	2,616	2,042	78.1	574	21.9	300	11.5	274	10.5
Race/ethnicity of households:									
White, non-Hispanic	8,934	5,803	65.0	3,131	35.0	1,579	17.7	1,552	17.4
Black, non-Hispanic	4,095	2,376	58.0	1,719	42.0	1,010	24.7	709	17.3
Hispanic ³	4,397	2,740	62.3	1,657	37.7	1,113	25.3	544	12.4
Other, non-Hispanic	1,491	1,036	69.5	455	30.5	263	17.6	192	12.9
Area of residence: ⁴									
Inside metropolitan area	15,191	9,663	63.6	5,528	36.4	3,155	20.8	2,373	15.6
In principal cities ⁵	6,487	4,090	63.0	2,397	37.0	1,458	22.5	939	14.5
Not in principal cities	5,884	3,848	65.4	2,036	34.6	1,128	19.2	908	15.4
Outside metropolitan area	3,726	2,291	61.5	1,435	38.5	811	21.8	624	16.7
Census geographic region:									
Northeast	2,890	1,867	64.6	1,023	35.4	587	20.3	436	15.1
Midwest	3,833	2,438	63.6	1,395	36.4	792	20.7	603	15.7
South	7,878	4,955	62.9	2,923	37.1	1,631	20.7	1,292	16.4
West	4,316	2,694	62.4	1,622	37.6	956	22.2	666	15.4

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

¹Totals exclude households for which income was not reported (about 25 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 (0.7 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 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 19 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, 2015 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 (tables S-2 and S-3). 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, 2015

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	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All individuals in households	316,161	273,923	86.6	42,238	13.4	27,605	8.7	14,633	4.6	
Household composition:										
With children < 18 yrs	159,087	132,499	83.3	26,588	16.7	19,047	12.0	7,541	4.7	
With children < 6 yrs	73,154	60,170	82.3	12,984	17.7	9,782	13.4	3,202	4.4	
Married-couple families	109,306	97,204	88.9	12,102	11.1	9,051	8.3	3,051	2.8	
Female head, no spouse	36,604	25,148	68.7	11,456	31.3	8,060	22.0	3,396	9.3	
Male head, no spouse	11,274	8,770	77.8	2,504	22.2	1,582	14.0	922	8.2	
Other household with child ²	1,903	1,378	72.4	525	27.6	354	18.6	171	9.0	
With no children < 18 yrs	157,074	141,425	90.0	15,649	10.0	8,558	5.4	7,091	4.5	
More than one adult	122,245	111,605	91.3	10,640	8.7	6,080	5.0	4,560	3.7	
Women living alone	18,954	16,169	85.3	2,785	14.7	1,413	7.5	1,372	7.2	
Men living alone	15,876	13,652	86.0	2,224	14.0	1,065	6.7	1,159	7.3	
With elderly	70,840	64,343	90.8	6,497	9.2	4,196	5.9	2,301	3.2	
Elderly living alone	13,137	11,932	90.8	1,205	9.2	657	5.0	548	4.2	
Race/ethnicity of households:										
White, non-Hispanic	199,829	179,382	89.8	20,447	10.2	12,691	6.4	7,756	3.9	
Black, non-Hispanic	38,770	30,414	78.4	8,356	21.6	5,603	14.5	2,753	7.1	
Hispanic ³	53,194	42,301	79.5	10,893	20.5	7,691	14.5	3,202	6.0	
Other, non-Hispanic	24,368	21,827	89.6	2,541	10.4	1,620	6.6	921	3.8	
Household income-to-poverty ratio:										
Under 1.00	37,630	22,547	59.9	15,083	40.1	9,446	25.1	5,637	15.0	
Under 1.30	50,896	31,375	61.6	19,521	38.4	12,427	24.4	7,094	13.9	
Under 1.85	77,248	51,217	66.3	26,031	33.7	16,821	21.8	9,210	11.9	
1.85 and over	162,902	153,520	94.2	9,382	5.8	6,238	3.8	3,144	1.9	
Income unknown	76,012	69,187	91.0	6,825	9.0	4,546	6.0	2,279	3.0	
Area of residence: ⁴										
Inside metropolitan area	271,449	236,611	87.2	34,838	12.8	22,689	8.4	12,149	4.5	
In principal cities ⁵	89,445	76,090	85.1	13,355	14.9	8,937	10.0	4,418	4.9	
Not in principal cities	141,113	125,555	89.0	15,558	11.0	10,129	7.2	5,429	3.8	
Outside metropolitan area	44,712	37,313	83.5	7,399	16.5	4,916	11.0	2,483	5.6	
Census geographic region:										
Northeast	55,641	49,095	88.2	6,546	11.8	4,265	7.7	2,281	4.1	
Midwest	66,909	58,273	87.1	8,636	12.9	5,629	8.4	3,007	4.5	
South	118,756	101,861	85.8	16,895	14.2	10,736	9.0	6,159	5.2	
West	74,855	64,696	86.4	10,159	13.6	6,974	9.3	3,185	4.3	

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 2015, these exclusions represented about 914,000 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 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, 2015 Current Population Survey Food Security Supplement.

Table S-3

Number of children by food security status of households and selected household characteristics, 2015

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	73,455	60,337	82.1	13,118	17.9	6,377	8.7	541	.7
Household composition:									
With children < 6 yrs	36,296	29,423	81.1	6,873	18.9	3,098	8.5	216	.6
Married-couple families	49,009	43,443	88.6	5,566	11.4	2,602	5.3	204	.4
Female head, no spouse	18,707	12,462	66.6	6,245	33.4	3,136	16.8	272	1.5
Male head, no spouse	5,078	3,944	77.7	1,134	22.3	561	11.0	NA	NA
Other household with child ⁴	660	486	73.6	174	26.4	79	12.0	NA	NA
Race/ethnicity of households:									
White, non-Hispanic	41,222	35,564	86.3	5,658	13.7	2,663	6.5	176	.4
Black, non-Hispanic	10,412	7,611	73.1	2,801	26.9	1,270	12.2	113	1.1
Hispanic ⁵	16,165	12,318	76.2	3,847	23.8	2,041	12.6	206	1.3
Other, non-Hispanic	5,657	4,845	85.6	812	14.4	403	7.1	NA	NA
Household income-to-poverty ratio:									
Under 1.00	12,944	7,312	56.5	5,632	43.5	2,838	21.9	269	2.1
Under 1.30	17,100	9,956	58.2	7,144	41.8	3,552	20.8	324	1.9
Under 1.85	24,030	15,012	62.5	9,018	37.5	4,505	18.7	404	1.7
1.85 and over	34,130	31,860	93.3	2,270	6.7	1,148	3.4	NA	NA
Income unknown	15,295	13,465	88.0	1,830	12.0	724	4.7	86	.6
Area of residence: ⁶									
Inside metropolitan area	62,964	52,166	82.9	10,798	17.1	5,305	8.4	492	.8
In principal cities ⁷	20,159	16,044	79.6	4,115	20.4	1,945	9.6	234	1.2
Not in principal cities	33,347	28,489	85.4	4,858	14.6	2,538	7.6	214	.6
Outside metropolitan area	10,491	8,171	77.9	2,320	22.1	1,072	10.2	49	.5
Census geographic region:									
Northeast	11,800	9,902	83.9	1,898	16.1	951	8.1	76	.6
Midwest	15,675	13,054	83.3	2,621	16.7	1,282	8.2	120	.8
South	28,138	22,786	81.0	5,352	19.0	2,580	9.2	191	.7
West	17,842	14,594	81.8	3,248	18.2	1,564	8.8	153	.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 2015, these exclusions represented 227,000 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 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, 2015 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 a 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 2015 are directly comparable with those for 2005 and later years, but not with those reported for 2004 and earlier years.

An estimated 93.0 percent of households were food secure throughout the 30-day period from mid-November to mid-December 2015 (table S-4).³ An estimated 7.0 percent (8.7 million households) were food insecure at some time during that 30-day period, including 2.9 percent (3.6 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 2014 (7.9 percent and 3.4 percent, respectively). From 2014 to 2015, 30-day food insecurity declined for many subpopulations, including households with children (under age 18 and age 6), married couple families, single mother families, households without children, multiple-adult households without children, women living alone, all race/ethnic groups, and households with incomes below 185 percent of the poverty line. The prevalence of 30-day food insecurity declined significantly in all residence areas, and in the Northeast and in the South.

The prevalence of 30-day very low food security declined significantly from 2014 to 2015 in many subpopulations, as well. There were no statistically significant increases in 30-day very low food security prevalence. The prevalence of 30-day very low food security declined significantly among all households, households with children under age 18, multiple-adult households with no children, White (non-Hispanic) headed households, Black (non-Hispanic) headed households, and households with incomes below 185 percent of the poverty line. The prevalence of 30-day very low food security declined significantly in suburban areas, in nonmetropolitan areas, and in the Northeast and in the South.

The number of households that were food insecure at some time during the 30 days from mid-November to mid-December 2015 was 55 percent of the number that were food insecure at some time during the entire 12 months prior to the survey; 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.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 13-22, 2015.

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, 2015¹

Category	Total ¹		Food insecure						
			Food secure		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	125,164	116,460	93.0	8,704	7.0	5,105	4.1	3,599	2.9
Household composition:									
With children < 18 yrs	38,978	35,447	90.9	3,531	9.1	2,371	6.1	1,160	3.0
With children < 6 yrs	16,995	15,484	91.1	1,511	8.9	1,062	6.2	449	2.6
Married-couple families	25,232	23,885	94.7	1,347	5.3	956	3.8	391	1.5
Female head, no spouse	10,117	8,388	82.9	1,729	17.1	1,136	11.2	593	5.9
Male head, no spouse	3,133	2,759	88.1	374	11.9	217	6.9	157	5.0
Other household with child ²	496	416	83.9	80	16.1	61	12.3	NA	NA
With no children < 18 yrs	86,186	81,014	94.0	5,172	6.0	2,733	3.2	2,439	2.8
More than one adult	51,357	48,979	95.4	2,378	4.6	1,350	2.6	1,028	2.0
Women living alone	18,953	17,413	91.9	1,540	8.1	784	4.1	756	4.0
Men living alone	15,876	14,622	92.1	1,254	7.9	599	3.8	655	4.1
With elderly	35,265	33,735	95.7	1,530	4.3	862	2.4	668	1.9
Elderly living alone	13,137	12,493	95.1	644	4.9	319	2.4	325	2.5
Race/ethnicity of households:									
White, non-Hispanic	83,931	79,355	94.5	4,576	5.5	2,515	3.0	2,061	2.5
Black, non-Hispanic	15,734	13,918	88.5	1,816	11.5	1,125	7.2	691	4.4
Hispanic ³	16,803	14,958	89.0	1,845	11.0	1,199	7.1	646	3.8
Other, non-Hispanic	8,695	8,229	94.6	466	5.4	265	3.0	201	2.3
Household income-to-poverty ratio:									
Under 1.00	14,070	10,917	77.6	3,153	22.4	1,698	12.1	1,455	10.3
Under 1.30	18,917	14,861	78.6	4,056	21.4	2,253	11.9	1,803	9.5
Under 1.85	28,994	23,648	81.6	5,346	18.4	2,996	10.3	2,350	8.1
1.85 and over	65,319	63,423	97.1	1,896	2.9	1,225	1.9	671	1.0
Income unknown	30,850	29,389	95.3	1,461	4.7	883	2.9	578	1.9
Area of residence: ⁴									
Inside metropolitan area	106,989	99,750	93.2	7,239	6.8	4,309	4.0	2,930	2.7
In principal cities ⁵	36,809	34,069	92.6	2,740	7.4	1,652	4.5	1,088	3.0
Not in principal cities	53,585	50,372	94.0	3,213	6.0	1,939	3.6	1,274	2.4
Outside metropolitan area	18,175	16,711	91.9	1,464	8.1	795	4.4	669	3.7
Census geographic region:									
Northeast	22,300	20,900	93.7	1,400	6.3	845	3.8	555	2.5
Midwest	27,199	25,226	92.7	1,973	7.3	1,154	4.2	819	3.0
South	47,389	43,965	92.8	3,424	7.2	1,952	4.1	1,472	3.1
West	28,276	26,370	93.3	1,906	6.7	1,153	4.1	753	2.7

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 13-22, 2015. 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 2015, these exclusions represented 381,000 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 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 16 percent of households in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2015 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. 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 (72.1 percent of households with children and 81.8 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 (11.3 percent of households with children and 7.4 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 indicate 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).

⁵ The 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, 2012-15 ¹

Scale item ²	Households affirming item ³			
	2012	2013	2014	2015
	<i>Percent</i>			
Household items:				
Worried food would run out before (I/we) got money to buy more	19.5	18.9	18.7	17.0
Food bought didn't last and (I/we) didn't have money to get more	15.7	15.6	15.5	14.1
Couldn't afford to eat balanced meals	15.0	14.8	14.8	13.8
Adult items:				
Adult(s) cut size of meals or skipped meals	8.9	8.7	8.7	7.8
Respondent ate less than felt he/she should	9.0	8.9	8.8	7.9
Adult(s) cut size or skipped meals in 3 or more months	6.8	6.7	6.7	6.0
Respondent hungry but didn't eat because couldn't afford	4.7	4.5	4.8	4.2
Respondent lost weight	3.0	2.9	2.8	2.5
Adult(s) did not eat for whole day	1.7	1.7	1.7	1.6
Adult(s) did not eat for whole day in 3 or more months	1.3	1.3	1.3	1.2
Child items:				
Relied on few kinds of low-cost food to feed child(ren)	17.0	16.4	15.5	13.6
Couldn't feed child(ren) balanced meals	10.6	10.0	9.9	8.4
Child(ren) were not eating enough	4.2	4.4	4.5	3.6
Cut size of child(ren)'s meals	2.3	2.3	2.2	1.7
Child(ren) were hungry	1.5	1.3	1.4	.9
Child(ren) skipped meals	.8	.8	.8	.6
Child(ren) skipped meals in 3 or more months	.6	.5	.6	.5
Child(ren) did not eat for whole day	.1	.2	.2	.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 item are omitted from the calculations. 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, 2015

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	72.09	72.09	Food secure (83.43 percent)
1	6.58	78.67	
2	4.76	83.43	
3	3.29	86.72	Low food security (11.69 percent)
4	2.62	89.34	
5	2.34	91.68	
6	1.90	93.58	
7	1.54	95.12	
8	1.29	96.41	Very low food security (4.88 percent)
9	1.13	97.54	
10	.76	98.30	
11	.68	98.98	
12	.36	99.34	
13	.29	99.63	
14	.12	99.75	
15	.09	99.84	
16	.06	99.90	
17	.07	99.97	
18	.03	100.00	
Panel B: Households with children—8-item child food security scale			
0	84.68	84.68	Children food secure (92.25 percent)
1	7.57	92.25	
2	4.02	96.27	Low food security among children (7.05 percent)
3	2.16	98.43	
4	.87	99.30	Very low food security among children (0.70 percent)
5	.35	99.65	
6	.15	99.80	
7	.14	99.94	
8	.06	100.00	
Panel C: Households with no children—10-item adult food security scale			
0	81.75	81.75	Food secure (89.10 percent)
1	4.09	85.84	
2	3.26	89.10	
3	2.89	91.99	Low food security (5.79 percent)
4	1.64	93.63	
5	1.26	94.89	
6	1.79	96.68	Very low food security (5.11 percent)
7	1.31	97.99	
8	.87	98.86	
9	.41	99.27	
10	.73	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, 2015 Current Population Survey Food Security Supplement.

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

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 Supplements 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 2015 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 18 to 28 percent (depending on the specific question), reported that it occurred “often.”

In response to Method 2 questions, conditional on affirming the general question, 29 to 36 percent of respondents reported that the behavior, experience, or condition occurred “in almost every month;” 39 to 48 percent reported that it occurred in “some months, but not every month;” and 18 to 27 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, 2015¹

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	17.0	4.4	12.6	26	74
Food bought didn't last and (I/we) didn't have money to get more	14.1	3.0	11.0	22	78
Couldn't afford to eat balanced meals	13.8	3.8	10.0	28	72
Relied on few kinds of low-cost food to feed child(ren)	13.6	3.4	10.2	25	75
Couldn't feed child(ren) balanced meals	8.4	1.6	6.9	19	81
Child(ren) were not eating enough	3.6	.6	3.0	18	82

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	7.8	2.7	3.3	1.7	35	43	22
Respondent ate less than felt he/she should	7.8	2.6	3.4	1.8	33	44	23
Respondent hungry but didn't eat because couldn't afford	4.1	1.5	1.7	.9	36	41	23
Respondent lost weight	2.5	NA	NA	NA	NA	NA	NA
Adult(s) did not eat for whole day	1.6	.6	.6	.4	35	39	26
Cut size of child(ren)'s meals	1.7	.5	.7	.5	29	44	27
Child(ren) were hungry	.9	.3	.4	.2	29	48	23
Child(ren) skipped meals	.6	.2	.3	.1	34	48	18
Child(ren) did not eat for whole day	.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 follow up 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, 2015 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, 2015¹

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	97.8	51.0	46.7	52	48
Food bought didn't last and (I/we) didn't have money to get more	96.8	40.8	56.0	42	58
Couldn't afford to eat balanced meals	96.0	46.3	49.7	48	52
Relied on few kinds of low-cost food to feed child(ren)	92.4	38.6	53.8	42	58
Couldn't feed child(ren) balanced meals	81.1	24.2	56.9	30	70
Child(ren) were not eating enough	51.0	11.8	39.1	23	77

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	96.3	45.8	41.8	8.7	48	43	9
Respondent ate less than felt he/she should	94.8	44.1	40.2	10.5	47	42	11
Respondent hungry but didn't eat because couldn't afford	67.2	28.1	27.5	11.5	42	41	17
Respondent lost weight	44.9	NA	NA	NA	NA	NA	NA
Adult(s) did not eat for whole day	30.7	11.2	12.3	7.1	37	40	23
Cut size of child(ren)'s meals	29.5	9.7	13.6	6.2	33	46	21
Child(ren) were hungry	17.8	5.3	8.8	3.6	30	50	21
Child(ren) skipped meals	11.9	4.3	5.8	1.8	36	49	15
Child(ren) did not eat for whole day	1.6	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 follow up 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, 2015 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 21 to 35 percent of their prevalence at any time during the month (analysis not shown, based on table S-9). The corresponding ranges for daily prevalence of the child-referenced items were 27 to 33 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 2015* (<http://www.ers.usda.gov/publications/err-economic-research-report/err215.aspx>).

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, 2015¹

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	7.88	NA	NA	NA	NA	NA	NA
Food bought didn't last and (I/we) didn't have money to get more	6.97	NA	NA	NA	NA	NA	NA
Couldn't afford to eat balanced meals	7.76	NA	NA	NA	NA	NA	NA
Relied on few kinds of low-cost food to feed child(ren)	5.20	65	14	21	8.4	1.46	
Couldn't feed child(ren) balanced meals	4.62	53	18	29	10.5	1.62	
Child(ren) were not eating enough	2.65	56	16	28	10.0	0.88	
Adult(s) cut size of meals or skipped meals	1.61	NA	NA	NA	NA	NA	NA
Respondent ate less than felt he/she should	1.07	72	13	15	6.5	0.23	
Respondent hungry but didn't eat because couldn't afford	7.37	NA	NA	NA	NA	NA	NA
Respondent lost weight	4.83	NA	NA	NA	NA	NA	NA
Adult(s) did not eat for whole day	2.12	NA	NA	NA	NA	NA	NA
Cut size of child(ren)'s meals	1.05	66	11	23	8.0	0.28	
Child(ren) were hungry	0.63	63	13	24	7.9	0.17	
Child(ren) skipped meals	0.43	58	17	25	9.5	0.14	
Child(ren) did not eat for whole day	0.08	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 13-22, 2015.

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, 2015 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/ethnicity, income, metropolitan 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, 2015**

Category	Median weekly food spending relative to TFP ¹	
	Food secure	Food insecure
	<i>Ratio (cost of TFP = 1.0)</i>	
All households	1.21	0.95
Household composition:		
With children < 18 yrs	1.11	.88
At least one child < 6 yrs	1.10	.92
Married couple families	1.14	.90
Female head, no spouse	1.03	.88
Male head, no spouse	1.01	.86
Other household with child ²	1.05	NA
With no children < 18 yrs	1.30	1.04
More than one adult	1.19	.86
Women living alone	1.35	1.11
Men living alone	1.54	1.16
With elderly	1.18	.88
Elderly living alone	1.24	1.06
Race/ethnicity of households:		
White, non-Hispanic	1.29	.96
Black, non-Hispanic	1.05	.89
Hispanic ³	1.10	.94
Other, non-Hispanic	1.18	.94
Household income-to-poverty ratio:		
Under 1.00	0.95	.89
Under 1.30	0.95	.88
Under 1.85	0.97	.90
1.85 and over	1.34	1.12
Income unknown	1.18	.95
Area of residence: ⁴		
Inside metropolitan area	1.24	.96
In principal cities ⁵	1.27	.96
Not in principal cities	1.26	.97
Outside metropolitan area	1.12	.88
Census geographic region:		
Northeast	1.27	.99
Midwest	1.17	.95
South	1.19	.95
West	1.27	.94

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 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.

⁵Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 16 percent of households in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2015 Current Population Survey Food Security Supplement.

Use of Food Pantries and Emergency Kitchens

The December 2015 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,” below for descriptions of these facilities). All households with incomes below 185 percent of the Federal poverty threshold were asked these questions. In order 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 2015. 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 2015 TEFAP supplied 864 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 under representation 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 households that used food pantries and emergency kitchens is compared with 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, 2015

Category	Pantries			Kitchens		
	Total ¹	Users		Total ¹	Users	
	1,000	1,000	Percent	1,000	1,000	Percent
All households	124,593	6,514	5.2	124,589	727	0.6
All persons in households	314,558	17,638	5.6	314,551	1,456	0.5
Adults in households	241,629	12,231	5.1	241,653	1,123	0.5
Children in households	72,929	5,407	7.4	72,898	333	0.5
Households by food security status:						
Food-secure households	108,933	2,095	1.9	108,931	177	0.2
Food-insecure households	15,631	4,404	28.2	15,633	550	3.5
Households with low food security	9,418	2,160	22.9	9,423	192	2.0
Households with very low food security	6,213	2,244	36.1	6,210	358	5.8

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, 2015 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, 2015

Category	Food secure	Food insecure		
		All	With low food security	With very low food security
		Percent		
Income less than 185 percent of poverty line:				
Received emergency food from food pantry previous 12 months	32.0	68.0	32.7	35.3
Did not receive emergency food from food pantry previous 12 months	73.7	26.3	16.7	9.6
Ate meal at emergency kitchen previous 12 months	23.4	76.6	28.1	48.5
Did not eat meal at emergency kitchen previous 12 months	68.0	32.0	19.1	12.9

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2015 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, 2015

Category	Total ¹	Pantry users	
	1,000	1,000	Percent
All households	124,593	6,514	5.2
Household composition:			
With children < 18 yrs	38,724	2,648	6.8
At least one child < 6 yrs	16,886	1,171	6.9
Married-couple families	25,114	905	3.6
Female head, no spouse	9,998	1,340	13.4
Male head, no spouse	3,124	331	10.6
Other household with child ²	489	73	14.9
With no children < 18 yrs	85,868	3,866	4.5
More than one adult	51,234	1,812	3.5
Women living alone	18,864	1,143	6.1
Men living alone	15,770	911	5.8
With elderly	35,144	1,295	3.7
Elderly living alone	13,091	536	4.1
Race/ethnicity of households:			
White, non-Hispanic	83,663	3,334	4.0
Black, non-Hispanic	15,618	1,603	10.3
Hispanic ³	16,652	1,140	6.8
Other, non-Hispanic	8,660	437	5.0
Household income-to-poverty ratio:			
Under 1.00	13,913	2,827	20.3
Under 1.30	18,697	3,629	19.4
Under 1.85	28,662	4,508	15.7
1.85 and over	65,237	980	1.5
Income unknown	30,694	1,026	3.3
Area of residence: ⁴			
Inside metropolitan area	106,514	5,142	4.8
In principal cities ⁵	36,596	2,126	5.8
Not in principal cities	53,357	2,019	3.8
Outside metropolitan area	18,079	1,372	7.6
Census geographic region:			
Northeast	22,146	1,048	4.7
Midwest	27,122	1,707	6.3
South	47,191	2,283	4.8
West	28,134	1,476	5.2

¹Totals exclude households that did not answer the question about getting food from a food pantry. These exclusions represented 0.8 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 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 16 percent of households in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2015 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 non-recipient 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, 2015

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	.89
Did not receive SNAP ¹ benefits previous 30 days	.95
Income less than 185 percent of poverty line; school-age children in household:	
Received free or reduced-price school lunch previous 30 days	.84
Did not receive free or reduced-price school lunch previous 30 days	.87
Income less than 185 percent of poverty line; children under age 5 in household:	
Received WIC ² previous 30 days	.88
Did not receive WIC ² previous 30 days	.91
Income less than 185 percent of poverty line:	
Received emergency food from food pantry previous 12 months	.85
Did not receive emergency food from food pantry previous 12 months	.97

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, 2015 Current Population Survey Food Security Supplement.

⁸Food purchased with SNAP benefits is included in household food spending as calculated here. However, the value of school lunches and food obtained through WIC 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 non-recipient households in similar low-income ranges. This complements table 8 of *Household Food Security in the United States in 2015* (<http://www.ers.usda.gov/publications/err-economic-research-report/err215.aspx>), 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, 2015¹

Category	Food insecurity (low or very low food security)	Very low food security
	<i>Percent</i>	
Income less than 130 percent of poverty line:		
Received SNAP ² benefits previous 30 days	30.7	13.3
Received SNAP ² benefits in every month during the previous 12 months	30.3	13.1
Received SNAP ² benefits previous 12 months but not previous 30 days (SNAP leavers)	33.1	15.1
Did not receive SNAP ² benefits previous 12 months	14.6	6.7
Income less than 185 percent of poverty line; school-age children in household:		
Received free or reduced-price school lunch previous 30 days	26.0	9.3
Did not receive free or reduced-price school lunch previous 30 days	10.8	3.3
Income less than 185 percent of poverty line; children under age 5 in household:		
Received WIC ³ previous 30 days	20.9	6.2
Did not receive WIC ³ previous 30 days	15.4	4.9
Income less than 185 percent of poverty line:		
Received emergency food from food pantry previous 30 days	53.5	30.0
Did not receive emergency food from food pantry previous 30 days	15.1	6.1

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 13-22, 2015. 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 called 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, 2015 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 2015

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	31.2	55.3	3.4	51.2
Received free or reduced-price school lunch previous 30 days	23.0	31.9	1.3	15.4
Received WIC ³ previous 30 days	20.0	10.1	1.1	4.7
Participated in one or more of the three Federal programs	26.1	68.4	2.6	58.2
Did not participate in any of the three Federal programs	8.5	31.6	1.3	41.9

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 called 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, 2015 Current Population Survey Food Security Supplement.

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 U.S. Department of Agriculture, Economic Research Service. <http://webarchives.cdlib.org/sw1bc3ts3z/http://ers.usda.gov/publications/efan03007/>
- 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 U.S. Department of Agriculture, Economic Research Service. <http://webarchives.cdlib.org/sw1m04028n/http://www.ers.usda.gov/publications/efan02010/>
- Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2015. *Household Food Security in the United States in 2015*, ERR-215, U.S. Department of Agriculture, Economic Research Service. <http://www.ers.usda.gov/publications/err-economic-research-report/err215.aspx/>
- 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. U.S. Department of Agriculture, Economic Research Service. <http://webarchives.cdlib.org/sw15d8pg7m/http://ers.usda.gov/publications/fanrr11-2/>
- 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, U.S. Department of Agriculture, Economic Research Service. <http://webarchives.cdlib.org/sw1s17tt5t/http://ers.usda.gov/publications/efan02016>.
- 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 U.S. Department of Agriculture, Economic Research Service. <http://webarchives.cdlib.org/sw1s17tt5t/http://ers.usda.gov/publications/fanrr16-2/>

- 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.