



United States Department of Agriculture

Economic  
Research  
Service

Administrative  
Publication  
Number 081

September 2019

# Statistical Supplement to Household Food Security in the United States in 2018

Alisha Coleman-Jensen  
Matthew P. Rabbitt  
Christian A. Gregory  
Anita Singh



United States Department of Agriculture

## Economic Research Service [www.ers.usda.gov](http://www.ers.usda.gov)

### **Recommended citation format for this publication:**

Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh.  
*Statistical Supplement to Household Food Security in the United States in 2018*, AP-081,  
U.S. Department of Agriculture, Economic Research Service, September 2019.

Use of commercial and trade names does not imply approval or constitute endorsement by USDA.

To ensure the quality of its research reports and satisfy governmentwide standards, ERS requires that all research reports with substantively new material be reviewed by qualified technical research peers. This technical peer review process, coordinated by ERS' Peer Review Coordinating Council, allows experts who possess the technical background, perspective, and expertise to provide an objective and meaningful assessment of the output's substantive content and clarity of communication during the publication's review.

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: [program.intake@usda.gov](mailto:program.intake@usda.gov).

USDA is an equal opportunity provider, employer, and lender.



**Economic  
Research  
Service**

Administrative  
Publication  
Number 081

September 2019

# Statistical Supplement to Household Food Security in the United States in 2018

Alisha Coleman-Jensen, [alisha.coleman-jensen@usda.gov](mailto:alisha.coleman-jensen@usda.gov)  
Matthew P. Rabbitt, [matthew.rabbitt@usda.gov](mailto:matthew.rabbitt@usda.gov)  
Christian A. Gregory, [christian.gregory@usda.gov](mailto:christian.gregory@usda.gov)  
Anita Singh, USDA, Food and Nutrition Service

## Note to Readers

This Supplement provides statistics that complement those in *Household Food Security in the United States in 2018* (ERR-270). 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.

## About the Authors

Alisha Coleman-Jensen is a sociologist and Matthew Rabbitt is an economist in the Food Assistance Branch, and Christian Gregory is an economist in the Diet, Safety, and Health Economics Branch, Food Economics Division, Economic Research Service, U.S. Department of Agriculture. Anita Singh is Chief, SNAP (Supplemental Nutrition Assistance Program) Evaluation Branch, SNAP Research and Analysis Division, Office of Policy Support, Food and Nutrition Service, USDA.

## Acknowledgments

The authors thank Jean Buzby, Constance Newman, Michael D. Smith, Jessica E. Todd, Jay Variyam, and Michele Ver Ploeg, of the Economic Research Service, U.S. Department of Agriculture, for their reviews of the report. Thanks also to ERS editors Dale Simms and Richard Mason and ERS designer Cynthia A. Ray.

# Contents

<b>Introduction</b> .....	<b>1</b>
<b>Food Insecurity in Low-Income Households</b> .....	<b>2</b>
<b>Number of Persons by Household Food Security Status and Selected Household Characteristics</b> .....	<b>4</b>
<b>Food Security During the 30 Days Prior to the Food Security Survey</b> .....	<b>7</b>
<b>Household Responses to Questions in the Food Security Scale</b> .....	<b>9</b>
<b>Frequency of Occurrence of Behaviors, Experiences, and Conditions That Indicate Food Insecurity</b> .....	<b>13</b>
<b>Monthly and Daily Occurrence of Food-Insecure Conditions</b> .....	<b>16</b>
<b>Food Spending by Food-Secure and Food-Insecure Households</b> .....	<b>18</b>
<b>Use of Food Pantries and Emergency Kitchens</b> .....	<b>20</b>
<b>Food Spending by Households That Received Food and Nutrition Assistance</b> .....	<b>23</b>
<b>Food Security During the 30 Days Prior to the Food Security Survey in Households That Received Food and Nutrition Assistance</b> .....	<b>24</b>
<b>Combined Use of Federal and Community Food and Nutrition Assistance</b> .....	<b>25</b>
<b>References</b> .....	<b>26</b>

## Statistical Supplement Tables

Table S-1—Households with annual income below 130 percent of the poverty line by food security status and selected household characteristics, 2018 .....	3
Table S-2—Number of individuals by food security status of households and selected household characteristics, 2018 .....	5
Table S-3—Number of children by food security status of households and selected household characteristics, 2018 .....	6
Table S-4—Households by food security status during the 30 days prior to the food security survey and selected household characteristics, 2018 .....	8
Table S-5—Responses to items in the food security scale, 2015-18 .....	10
Table S-6—Percentage of households by food security raw score, 2018 .....	11
Table S-7—Frequency of occurrence of behaviors, experiences, and conditions indicating food insecurity reported by all U.S. households, 2018 .....	14
Table S-8—Frequency of occurrence of behaviors, experiences, and conditions indicating food insecurity reported by households with very low food security, 2018 .....	15
Table S-9—Monthly and daily occurrence of behaviors, experiences, and conditions indicating food insecurity reported by all U.S. households, 2018 .....	17
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, 2018 .....	19
Table S-11—Use of food pantries and emergency kitchens, 2018 .....	21

Table S-12—Prevalence of food security and food insecurity of households with annual income less than 185 percent of the poverty line by use of food pantries and emergency kitchens, 2018. . . . .	21
Table S-13—Use of food pantries, by selected household characteristics, 2018. . . . .	22
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, 2018 . . . . .	23
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, 2018 . . . . .	24
Table S-16—Combined use of Federal and community food and nutrition assistance programs by low-income households, 2018. . . . .	25

**Tables in Household Food Security in the United States in 2018**

Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2019. *Household Food Security in the United States in 2018*, ERR-270, USDA, Economic Research Service.

Table 1A—Households and individuals by food security status of household, 1998-2018. . . . .	7
Table 1B—Households with children by food security status and children by food security status of household, 1998-2018. . . . .	10
Table 2—Households by food security status and selected household characteristics, 2018 . . . . .	15
Table 3—Prevalence of food security and food insecurity in households with children by selected household characteristics, 2018 . . . . .	18
Table 4—Prevalence of household food insecurity and very low food security by State, average 2016-18. . . . .	23
Table 5—Change in prevalence of household food insecurity and very low food security by State, 2016-18 (average), 2013-15 (average), and 2006-08 (average). . . . .	24
Table 6—Weekly household food spending per person and relative to the household cost of the Thrifty Food Plan (TFP), 2018. . . . .	27
Table 7—Weekly household food spending per person and relative to the cost of the Thrifty Food Plan (TFP) by food security status, 2018 . . . . .	28
Table 8—Percentage of households by food security status and participation in selected Federal food and nutrition assistance programs, 2018 . . . . .	34
Table 9—Participation of food-insecure households in selected Federal food and nutrition assistance programs, 2018 . . . . .	34

***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 2018

## 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 2018* (Coleman-Jensen et al., 2019), 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 2018. Information about the survey, data, and methods is available in *Household Food Security in the United States in 2018*. 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.<sup>1</sup>

---

<sup>1</sup>Standard 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.<sup>2</sup> By definition, food insecurity 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 2018, 66.9 percent of households with incomes below 130 percent of the poverty line were food secure, while 33.1 percent were food insecure.

---

<sup>2</sup>The Federal poverty line was \$25,465 annual income for a family of four in 2018 (two adults and two children). Households with monthly income below 130 percent of the poverty line are eligible to participate in the Supplemental Nutrition Assistance Program (SNAP), formerly the Food Stamp program, 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 the poverty line.

Table S-1

**Households with annual income below 130 percent of the poverty line by food security status and selected household characteristics, 2018**

Category	Total <sup>1</sup>	Food insecure							
		Food secure		All		With low food security		With very low food security	
		1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All low-income households	17,061	11,419	66.9	5,642	33.1	3,186	18.7	2,456	14.4
Household composition:									
With children < 18 yrs	6,911	4,534	65.6	2,377	34.4	1,566	22.7	811	11.7
With children < 6 yrs	3,481	2,358	67.7	1,123	32.3	776	22.3	347	10.0
Married-couple families	2,834	2,131	75.2	703	24.8	549	19.4	154	5.4
Female head, no spouse	3,370	1,950	57.9	1,420	42.1	872	25.8	548	16.3
Male head, no spouse	619	398	64.3	221	35.7	127	20.5	94	15.2
Other household with child <sup>2</sup>	88	NA	NA	NA	NA	NA	NA	NA	NA
With no children < 18 yrs	10,150	6,885	67.8	3,265	32.2	1,619	16.0	1,646	16.2
More than one adult	3,835	2,792	72.8	1,043	27.2	548	14.3	495	12.9
Women living alone	3,643	2,371	65.1	1,272	34.9	668	18.3	604	16.6
Men living alone	2,672	1,723	64.5	949	35.5	403	15.1	546	20.4
With elderly	4,442	3,343	75.3	1,099	24.7	655	14.7	444	10.0
Elderly living alone	2,513	1,863	74.1	650	25.9	375	15.0	275	10.9
Race/ethnicity of households:									
White, non-Hispanic	7,720	5,221	67.6	2,499	32.4	1,372	17.8	1,127	14.6
Black, non-Hispanic	3,740	2,269	60.7	1,471	39.3	753	20.1	718	19.2
Hispanic <sup>3</sup>	4,185	2,935	70.1	1,250	29.9	829	19.8	421	10.1
Other, non-Hispanic	1,415	994	70.2	421	29.8	232	16.4	189	13.4
Area of residence: <sup>4</sup>									
Inside metropolitan area	13,988	9,481	67.8	4,507	32.2	2,520	18.0	1,987	14.2
In principal cities <sup>5</sup>	5,968	4,014	67.3	1,954	32.7	1,079	18.0	875	14.7
Not in principal cities	5,376	3,669	68.2	1,707	31.8	968	18.1	739	13.7
Outside metropolitan area	3,073	1,938	63.1	1,135	36.9	666	21.6	469	15.3
Census geographic region:									
Northeast	2,798	1,870	66.8	928	33.2	523	18.7	405	14.5
Midwest	3,341	2,240	67.0	1,101	33.0	644	19.3	457	13.7
South	7,218	4,743	65.7	2,475	34.3	1,381	19.1	1,094	15.2
West	3,704	2,566	69.3	1,138	30.7	638	17.2	500	13.5

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

<sup>1</sup>Totals 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 (0.8 percent of low-income households).

<sup>2</sup>Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

<sup>3</sup>Hispanics may be of any race.

<sup>4</sup>Metropolitan 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.

<sup>5</sup>Households 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, 2018 Current Population Survey Food Security Supplement.



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

The food security survey measures 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 all 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, 2018**

Category	In food-insecure households									
	Total <sup>1</sup>	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	323,005	285,778	88.5	37,227	11.5	24,577	7.6	12,650	3.9	
Household composition:										
With children < 18 yrs	156,812	134,754	85.9	22,058	14.1	15,966	10.2	6,092	3.9	
With children < 6 yrs	71,183	60,781	85.4	10,402	14.6	7,698	10.8	2,704	3.8	
Married-couple families	108,854	98,847	90.8	10,007	9.2	8,085	7.4	1,922	1.8	
Female head, no spouse	34,215	24,472	71.5	9,743	28.5	6,352	18.6	3,391	9.9	
Male head, no spouse	12,062	10,119	83.9	1,943	16.1	1,311	10.9	632	5.2	
Other household with child <sup>2</sup>	1,681	1,317	78.3	364	21.7	NA	NA	NA	NA	
With no children < 18 yrs	166,193	151,023	90.9	15,170	9.1	8,612	5.2	6,558	3.9	
More than one adult	128,834	118,681	92.1	10,153	7.9	6,045	4.7	4,108	3.2	
Women living alone	20,225	17,352	85.8	2,873	14.2	1,552	7.7	1,321	6.5	
Men living alone	17,134	14,991	87.5	2,143	12.5	1,015	5.9	1,128	6.6	
With elderly	77,421	71,195	92.0	6,226	8.0	4,295	5.5	1,931	2.5	
Elderly living alone	14,988	13,652	91.1	1,336	8.9	824	5.5	512	3.4	
Race/ethnicity of households:										
White, non-Hispanic	200,630	183,701	91.6	16,929	8.4	10,759	5.3	6,170	3.1	
Black, non-Hispanic	39,742	31,240	78.6	8,502	21.4	5,362	13.5	3,140	7.9	
Hispanic <sup>3</sup>	56,361	47,311	83.9	9,050	16.1	6,640	11.8	2,410	4.3	
Other, non-Hispanic	26,272	23,525	89.5	2,747	10.5	1,817	7.0	930	3.5	
Household income-to-poverty ratio:										
Under 1.00	30,839	20,037	65.0	10,802	35.0	6,555	21.2	4,247	13.8	
Under 1.30	45,623	30,898	67.7	14,725	32.3	9,090	19.9	5,635	12.4	
Under 1.85	70,617	50,261	71.2	20,356	28.8	13,078	18.5	7,278	10.3	
1.85 and over	175,746	166,167	94.5	9,579	5.5	6,776	3.9	2,803	1.6	
Income unknown	76,642	69,351	90.5	7,291	9.5	4,723	6.1	2,568	3.4	
Area of residence: <sup>4</sup>										
Inside metropolitan area	279,028	247,874	88.8	31,154	11.2	20,530	7.4	10,624	3.8	
In principal cities <sup>5</sup>	91,418	78,693	86.1	12,725	13.9	8,267	9.0	4,458	4.9	
Not in principal cities	146,373	132,974	90.8	13,399	9.2	9,001	6.2	4,398	3.0	
Outside metropolitan area	43,977	37,904	86.2	6,073	13.8	4,047	9.2	2,026	4.6	
Census geographic region:										
Northeast	55,759	50,101	89.9	5,658	10.1	3,646	6.5	2,012	3.6	
Midwest	67,255	59,448	88.4	7,807	11.6	5,212	7.7	2,595	3.9	
South	122,881	107,327	87.3	15,554	12.7	10,166	8.3	5,388	4.4	
West	77,110	68,901	89.4	8,209	10.6	5,554	7.2	2,655	3.4	

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

<sup>1</sup>Totals 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 2018, these exclusions represented about 1,015,000 individuals (0.3 percent of the U.S. population).

<sup>2</sup>Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

<sup>3</sup>Hispanics may be of any race.

<sup>4</sup>Metropolitan 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.

<sup>5</sup>Households 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, 2018 Current Population Survey Food Security Supplement.

Table S-3

**Number of children by food security status of households and selected household characteristics, 2018**

Category	Total <sup>1</sup>	In food-secure households		In food-insecure households <sup>2</sup>		In households with food-insecure children <sup>3</sup>		In households with very low food security among children	
		1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All children	73,562	62,388	84.8	11,174	15.2	5,999	8.2	540	0.7
Household composition:									
With children < 6 yrs	36,134	30,504	84.4	5,630	15.6	2,896	8.0	199	0.6
Married-couple families	49,659	44,955	90.5	4,704	9.5	2,150	4.3	115	0.2
Female head, no spouse	17,754	12,335	69.5	5,419	30.5	3,263	18.4	399	2.2
Male head, no spouse	5,519	4,590	83.2	929	16.8	NA	NA	NA	NA
Other household with child <sup>4</sup>	630	507	80.5	123	19.5	NA	NA	NA	NA
Race/ethnicity of households:									
White, non-Hispanic	40,525	35,877	88.5	4,648	11.5	2,435	6.0	132	0.3
Black, non-Hispanic	10,406	7,718	74.2	2,688	25.8	1,606	15.4	188	1.8
Hispanic <sup>5</sup>	16,548	13,556	81.9	2,992	18.1	1,560	9.4	200	1.2
Other, non-Hispanic	6,083	5,237	86.1	846	13.9	NA	NA	NA	NA
Household income-to-poverty ratio:									
Under 1.00	10,593	6,462	61.0	4,131	39.0	2,391	22.6	241	2.3
Under 1.30	15,782	10,267	65.1	5,515	34.9	3,140	19.9	316	2.0
Under 1.85	22,121	15,071	68.1	7,050	31.9	3,833	17.3	349	1.6
1.85 and over	36,534	34,158	93.5	2,376	6.5	1,198	3.3	112	0.3
Income unknown	14,906	13,158	88.3	1,748	11.7	NA	NA	NA	NA
Area of residence: <sup>6</sup>									
Inside metropolitan area	63,404	54,086	85.3	9,318	14.7	5,017	7.9	490	0.8
In principal cities <sup>7</sup>	20,279	16,370	80.7	3,909	19.3	2,158	10.6	315	1.6
Not in principal cities	34,189	30,290	88.6	3,899	11.4	2,016	5.9	145	0.4
Outside metropolitan area	10,158	8,302	81.7	1,856	18.3	NA	NA	NA	NA
Census geographic region:									
Northeast	11,711	10,116	86.4	1,595	13.6	NA	NA	NA	NA
Midwest	15,628	13,032	83.4	2,596	16.6	1,439	9.2	172	1.1
South	28,294	23,663	83.6	4,631	16.4	2,436	8.6	132	0.5
West	17,929	15,575	86.9	2,354	13.1	1,231	6.9	157	0.9

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

<sup>1</sup>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 food security scale. In 2018, these exclusions represented 283,000 children (0.4 percent).

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

<sup>3</sup>Households with food-insecure children are those with low or very low food security among children.

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

<sup>5</sup>Hispanics may be of any race.

<sup>6</sup>Metropolitan 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.

<sup>7</sup>Households 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.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2018 Current Population Survey Food Security Supplement.

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

The annual food security survey was designed with the primary objective of assessing households' food security during the 12-month period prior to the survey, but information is also collected with reference to the 30-day period prior to the survey. Households that responded affirmatively to each 12-month question were asked whether the same behavior, experience, or condition occurred during the last 30 days. Responses to these questions were used to assess the food security status of households during the 30 days prior to the survey, following the same protocols that were used for the 12-month measure<sup>3</sup> The 30-day food security measurement protocol was revised in 2005, so 30-day statistics for 2018 are directly comparable with those for 2005 and later years, but not with those reported for 2004 and earlier years.

An estimated 94.1 percent of households were food secure throughout the 30-day period from mid-November to mid-December 2018 (table S-4).<sup>4</sup> An estimated 5.9 percent (7.7 million households) were food insecure at some time during that 30-day period, including 2.4 percent (3.1 million) with very low food security. The national-level prevalence rate of food insecurity declined from the corresponding 30-day period in 2017 (6.3 percent).<sup>5</sup> From 2017 to 2018, 30-day food insecurity declined for all households with children (from 8.0 percent to 7.2 percent), households with children headed by a single man (from 10.9 percent to 7.7 percent), households headed by White non-Hispanics (from 4.7 percent to 4.3 percent) and Hispanics (from 9.9 percent to 8.6 percent), households with incomes below 185 percent of the poverty threshold (from 17.5 percent to 16.1 percent), and households in the South (from 7.5 percent to 6.4 percent).

The prevalence of 30-day very low food security declined significantly from 2017 to 2018 for households in nonmetropolitan (rural) areas (from 3.4 percent to 2.5 percent) and increased significantly for households in the Northeast (from 1.7 percent to 2.2 percent). The national-level prevalence of very low food security in 2017 (2.6 percent) was not statistically significantly different from 2018. See table S-4 in Coleman-Jensen et al. (2018) for estimates of the prevalence and severity of 30-day food insecurity in 2017.

The number of households that were food insecure at some time during the 30 days from mid-November to mid-December 2018 (7,681,000 households; table S-4) was 54 percent of the number of households that were food insecure at some time during the 12 months prior to the survey (14,311,000 households; Coleman-Jensen et al., 2019); the corresponding statistic for very low food security was 56 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.<sup>6</sup> 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, perhaps due to less access to school meal programs during the summer (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.

---

<sup>3</sup>For 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).

<sup>4</sup>The 2018 food security survey was conducted December 9-18, 2018.

<sup>5</sup>The 2017 food security survey was conducted December 10-19, 2017.

<sup>6</sup>The 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, 2018<sup>1</sup>**

Category	Total <sup>1</sup>	Food secure		Food insecure					
				All		With low food security		With very low food security	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All households	129,245	121,564	94.1	7,681	5.9	4,548	3.5	3,133	2.4
Household composition:									
With children < 18 yrs	37,612	34,911	92.8	2,701	7.2	1,898	5.1	803	2.1
With children < 6 yrs	16,306	15,151	92.9	1,155	7.1	818	5.0	337	2.1
Married-couple families	24,598	23,621	96.0	977	4.0	742	3.0	235	1.0
Female head, no spouse	9,349	7,931	84.8	1,418	15.2	933	10.0	485	5.2
Male head, no spouse	3,238	2,989	92.3	249	7.7	180	5.6	69	2.1
Other household with child <sup>2</sup>	427	370	86.7	57	13.3	NA	NA	NA	NA
With no children < 18 yrs	91,633	86,653	94.6	4,980	5.4	2,650	2.9	2,330	2.5
More than one adult	54,274	52,176	96.1	2,098	3.9	1,143	2.1	955	1.8
Women living alone	20,225	18,556	91.7	1,669	8.3	915	4.6	754	3.7
Men living alone	17,134	15,921	92.9	1,213	7.1	592	3.5	621	3.6
With elderly	39,125	37,575	96.0	1,550	4.0	1,015	2.6	535	1.4
Elderly living alone	14,988	14,305	95.4	683	4.6	426	2.9	257	1.7
Race/ethnicity of households:									
White, non-Hispanic	84,975	81,319	95.7	3,656	4.3	2,049	2.4	1,607	1.9
Black, non-Hispanic	16,613	14,629	88.1	1,984	11.9	1,177	7.0	807	4.9
Hispanic <sup>3</sup>	18,101	16,539	91.4	1,562	8.6	1,064	5.8	498	2.8
Other, non-Hispanic	9,556	9,078	95.0	478	5.0	258	2.7	220	2.3
Household income-to-poverty ratio:									
Under 1.00	12,140	9,633	79.3	2,507	20.7	1,359	11.2	1,148	9.5
Under 1.30	17,061	13,831	81.1	3,230	18.9	1,796	10.5	1,434	8.4
Under 1.85	26,836	22,519	83.9	4,317	16.1	2,427	9.1	1,890	7.0
1.85 and over	70,795	68,934	97.4	1,861	2.6	1,194	1.7	667	0.9
Income unknown	31,614	30,111	95.2	1,503	4.8	927	3.0	576	1.8
Area of residence: <sup>4</sup>									
Inside metropolitan area	111,051	104,607	94.2	6,444	5.8	3,765	3.4	2,679	2.4
In principal cities <sup>5</sup>	37,881	35,177	92.9	2,704	7.1	1,607	4.2	1,097	2.9
Not in principal cities	55,847	53,147	95.2	2,700	4.8	1,569	2.8	1,131	2.0
Outside metropolitan area	18,194	16,957	93.2	1,237	6.8	783	4.3	454	2.5
Census geographic region:									
Northeast	22,517	21,330	94.7	1,187	5.3	688	3.1	499	2.2
Midwest	27,791	26,146	94.1	1,645	5.9	1,006	3.6	639	2.3
South	49,814	46,634	93.6	3,180	6.4	1,851	3.7	1,329	2.7
West	29,123	27,454	94.3	1,669	5.7	1,003	3.4	666	2.3

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

<sup>1</sup>The 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 9-18, 2018. 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 2018, these exclusions represented 378,000 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.

<sup>2</sup>Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

<sup>3</sup>Hispanics may be of any race.

<sup>4</sup>Metropolitan 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.

<sup>5</sup>Households 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, 2018 Current Population Survey Food Security Supplement.

## Household Responses to Questions in the Food Security Scale

The 18 questions used for the food security measure ask about conditions, experiences, and behaviors that range widely in severity (items near the top of the lists in Table S-5 are relatively less severe, while those nearer the bottom are more severe). Those indicating less severe food insecurity are observed in a larger proportion of households, and the proportion declines as severity increases (table S-5). The two least severe questions refer to uncertainty about having enough food and the experience of running out of food. The remaining 16 items indicate reduced quality, variety, or desirability of diets and increasingly severe disruptions of normal eating patterns and reductions in food intake. (See page 12 for the complete wording of these questions.).

Three or more affirmative responses are required for a household to be classified as food insecure. 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. A large majority of households (76.3 percent of households with children and 83.7 percent of those without children) reported no problems or concerns in meeting their food needs (table S-6). Households that reported only one or two indications of food insecurity (9.8 percent of households with children and 6.4 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. 1598).<sup>7</sup> 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).

---

<sup>7</sup>The Life Sciences Research Office (LSRO) is a nonprofit organization in Bethesda, Maryland. 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, 2015-18<sup>1</sup>**

Scale item <sup>2</sup>	Households affirming item <sup>3</sup>			
	2015	2016	2017	2018
	<i>Percent</i>			
<b>Household items:</b>				
Worried food would run out before (I/we) got money to buy more	17.0	16.2	15.6	14.6
Food bought didn't last and (I/we) didn't have money to get more	14.1	13.3	12.8	12.2
Couldn't afford to eat balanced meals	13.8	12.9	12.7	12.2
<b>Adult items:</b>				
Adult(s) cut size of meals or skipped meals	7.8	7.5	7.0	6.7
Respondent ate less than felt he/she should	7.9	7.7	7.2	6.6
Adult(s) cut size or skipped meals in 3 or more months	6.0	5.7	5.3	5.1
Respondent hungry but didn't eat because couldn't afford	4.2	4.0	3.7	3.7
Respondent lost weight	2.5	2.4	2.4	2.2
Adult(s) did not eat for whole day	1.6	1.7	1.4	1.4
Adult(s) did not eat for whole day in 3 or more months	1.2	1.3	1.1	1.1
<b>Child items:</b>				
Relied on few kinds of low-cost food to feed child(ren)	13.6	13.0	13.0	11.9
Couldn't feed child(ren) balanced meals	8.4	8.3	8.2	7.4
Child(ren) were not eating enough	3.6	3.6	3.3	3.0
Cut size of child(ren)'s meals	1.7	1.7	1.5	1.3
Child(ren) were hungry	0.9	1.0	0.8	0.8
Child(ren) skipped meals	0.6	0.6	0.5	0.4
Child(ren) skipped meals in 3 or more months	0.5	0.5	0.4	0.3
Child(ren) did not eat for whole day	0.1	0.1	0.1	0.1

<sup>1</sup>Survey responses weighted to population totals.

<sup>2</sup>The 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.)

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

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



Table S-6

**Percentage of households by food security raw score, 2018**

<b>Panel A: Households with children—18-item household food security scale</b>			
Raw score (number of food-insecure conditions reported)	Percent of households <sup>1</sup>	Cumulative percent of households <sup>1</sup>	Food security status
0	76.25	76.25	Food secure (86.06 percent)
1	5.67	81.92	
2	4.14	86.06	
3	3.28	89.34	Low food security (9.97 percent)
4	2.16	91.50	
5	1.64	93.14	
6	1.75	94.89	
7	1.14	96.03	
8	1.08	97.11	Very low food security (3.97 percent)
9	0.72	97.83	
10	0.79	98.62	
11	0.42	99.04	
12	0.45	99.49	
13	0.24	99.73	
14	0.12	99.85	
15	0.07	99.92	
16	0.05	99.97	
17	0.02	99.99	
18	0.01	100.00	
<b>Panel B: Households with children—8-item child food security scale</b>			
0	86.59	86.59	Children food secure (92.93 percent)
1	6.34	92.93	
2	4.13	97.06	Low food security among children ( 6.48 percent)
3	1.88	98.94	
4	0.47	99.41	
5	0.29	99.70	Very low food security among children (0.59 percent)
6	0.13	99.83	
7	0.13	99.96	
8	0.04	100.00	
<b>Panel C: Households with no children—10-item adult food security scale</b>			
0	83.72	83.72	Food secure (90.10 percent)
1	3.58	87.30	
2	2.80	90.10	
3	2.83	92.93	Low food security (5.44 percent)
4	1.49	94.42	
5	1.12	95.54	
6	1.35	96.89	
7	1.27	98.16	Very low food security (4.46 percent)
8	0.83	98.99	
9	0.39	99.38	
10	0.62	100.00	

<sup>1</sup>Survey responses weighted to population totals.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2018 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 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 2018 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 16 to 26 percent (depending on the specific question) reported that it occurred “often.”

In response to Method 2 questions, conditional on affirming the general question, 29 to 38 percent of respondents reported that the behavior, experience, or condition occurred “in almost every month”; 34 to 47 percent reported that it occurred in “some months, but not every month”; and 23 to 34 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, 2018<sup>1</sup>**

Condition <sup>2</sup>	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	14.6	3.5	11.1	24.0	76.0
Food bought didn't last and (I/we) didn't have money to get more	12.2	2.3	9.9	19.0	81.0
Couldn't afford to eat balanced meals	12.2	3.1	9.1	26.0	74.0
Relied on few kinds of low-cost food to feed child(ren)	11.9	2.5	9.4	21.0	79.0
Couldn't feed child(ren) balanced meals	7.4	1.2	6.3	16.0	84.0
Child(ren) were not eating enough	3.0	0.5	2.5	16.0	84.0

Condition <sup>2</sup>	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	6.7	2.3	2.8	1.6	35	42	24
Respondent ate less than felt he/she should	6.6	2.2	2.9	1.5	33	44	23
Respondent hungry but didn't eat because couldn't afford	3.7	1.3	1.6	0.8	35	42	23
Respondent lost weight	2.2	NA	NA	NA	NA	NA	NA
Adult(s) did not eat for whole day	1.4	0.5	0.5	0.4	36	39	25
Cut size of child(ren)'s meals	1.3	0.4	0.6	0.3	30	47	23
Child(ren) were hungry	0.8	0.2	0.3	0.3	29	37	34
Child(ren) skipped meals	0.4	0.2	0.1	0.1	38	34	29
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.

<sup>1</sup>Survey 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.

<sup>2</sup>The 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, 2018 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, 2018<sup>1</sup>**

Condition <sup>2</sup>	Ever during the year	Frequency of occurrence			
		Often	Sometimes	Often	Sometimes
		—— Percent of all households ——		Percent of “ever during the year”	
Worried food would run out before (I/we) got money to buy more	98.0	46.0	52.1	47	53
Food bought didn't last and (I/we) didn't have money to get more	97.2	35.0	62.3	36	64
Couldn't afford to eat balanced meals	95.9	42.5	53.4	44	56
Relied on few kinds of low-cost food to feed child(ren)	92.2	32.9	59.3	36	64
Couldn't feed child(ren) balanced meals	84.4	20.2	64.2	24	76
Child(ren) were not eating enough	49.2	11.2	38.0	23	77

Condition <sup>2</sup>	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	96.8	44.4	45.3	7.1	46	47	7
Respondent ate less than felt he/she should	94.2	42.8	41.4	10.0	45	44	11
Respondent hungry but didn't eat because couldn't afford	68.5	27.5	29.8	11.1	40	44	16
Respondent lost weight	47.0	NA	NA	NA	NA	NA	NA
Adult(s) did not eat for whole day	31.7	12.0	12.8	7.0	38	40	22
Cut size of child(ren)'s meals	25.3	7.9	13.2	4.2	31	52	17
Child(ren) were hungry	18.8	4.9	7.3	6.5	26	39	35
Child(ren) skipped meals	10.0	3.9	3.2	2.9	39	32	29
Child(ren) did not eat for whole day	2.3	NA	NA	NA	NA	NA	NA

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

<sup>1</sup>Survey 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.

<sup>2</sup>The 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, 2018 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. Table S-9 summarizes responses to these questions.<sup>8</sup>

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 questions with the highest and lowest ratio of the daily prevalence divided by the monthly prevalence.

For the adult-referenced items, daily prevalence ranged from 24 to 32 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 26 to 34 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 2018* (Coleman-Jensen et al., 2019).

---

<sup>8</sup>Average daily prevalence for these questions 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, 2018**

Condition <sup>2</sup>	For households reporting condition at any time during previous 30 days					Monthly average occurrence	Average daily prevalence	
	Ever during previous 30 days	Number of days out of previous 30 days			Days <sup>3</sup>			Percent <sup>3</sup>
		1- 7 days	8-14 days	15-30 days				
Worried food would run out before (I/we) got money to buy more	6.73	NA	NA	NA	NA	NA		
Food bought didn't last and (I/we) didn't have money to get more	5.96	NA	NA	NA	NA	NA		
Couldn't afford to eat balanced meals	6.69	NA	NA	NA	NA	NA		
Adult(s) cut size of meals or skipped meals	4.35	68	15	17	7.5	1.09		
Respondent ate less than felt he/she should	3.98	57	17	26	9.7	1.29		
Respondent hungry but didn't eat because couldn't afford food	2.42	61	15	24	8.9	0.72		
Respondent lost weight	1.40	NA	NA	NA	NA	NA		
Adult(s) did not eat for whole day	0.92	68	16	16	7.3	0.22		
Relied on few kinds of low-cost food to feed child(ren)	6.20	NA	NA	NA	NA	NA		
Couldn't feed child(ren) balanced meals	3.98	NA	NA	NA	NA	NA		
Child(ren) were not eating enough	1.47	NA	NA	NA	NA	NA		
Cut size of child(ren)'s meals	0.78	65	17	18	8.4	0.22		
Child(ren) were hungry	0.47	58	17	25	10.0	0.16		
Child(ren) skipped meals	0.27	78	9	13	7.4	0.07		
Child(ren) did not eat for whole day	0.06	NA	NA	NA	NA	NA		

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

<sup>1</sup>Survey 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 9-18, 2018.

<sup>2</sup>The 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."

<sup>3</sup>Households 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, 2018 Current Population Survey Food Security Supplement.

## Food Spending by Food-Secure and Food-Insecure Households

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

Table S-10

**Weekly household food spending relative to the cost of the Thrifty Food Plan (TFP)  
by food security status and selected household characteristics, 2018**

Category	Median weekly food spending relative to TFP <sup>1</sup>	
	Food secure	Food insecure
	<i>Ratio (cost of TFP = 1.0)</i>	
All households	1.31	1.08
Household composition:		
With children < 18 yrs	1.17	0.98
At least one child < 6 yrs	1.17	0.97
Married-couple families	1.19	0.97
Female head, no spouse	1.10	1.03
Male head, no spouse	1.17	0.91
Other household with child <sup>2</sup>	NA	NA
With no children < 18 yrs	1.36	1.11
More than one adult	1.28	1.00
Women living alone	1.54	1.11
Men living alone	1.70	1.17
With elderly	1.21	1.07
Elderly living alone	1.35	1.11
Race/ethnicity of households:		
White, non-Hispanic	1.36	1.09
Black, non-Hispanic	1.11	1.07
Hispanic <sup>3</sup>	1.16	1.08
Other, non-Hispanic	1.27	1.08
Household income-to-poverty ratio:		
Under 1.00	1.07	0.97
Under 1.30	1.07	0.97
Under 1.85	1.07	1.03
1.85 and over	1.44	1.19
Income unknown	1.19	0.97
Area of residence: <sup>4</sup>		
Inside metropolitan area	1.33	1.10
In principal cities <sup>5</sup>	1.36	1.10
Not in principal cities	1.33	1.10
Outside metropolitan area	1.17	0.99
Census geographic region:		
Northeast	1.36	1.10
Midwest	1.21	1.07
South	1.28	1.06
West	1.35	1.11

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

<sup>1</sup>Statistics exclude households that did not answer the questions about spending on food or reported zero usual food spending and those that did not provide valid responses to any of the questions on food security. These exclusions represented 9 percent of all households.

<sup>2</sup>Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

<sup>3</sup>Hispanics may be of any race.

<sup>4</sup>Metropolitan 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.

<sup>5</sup>Households 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.

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

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2018 Current Population Survey Food Security Supplement.



## Use of Food Pantries and Emergency Kitchens

The December 2018 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, 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 2018. 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 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 use most items from a food pantry.<sup>9</sup>

Table S-12 compares the food security of low-income households that used food pantries and emergency kitchens with that of low-income households that did not use those facilities. Table S-13 shows use of food pantries by household composition, race and Hispanic ethnicity, income, and residence.

---

<sup>9</sup>Previous 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 2018, TEFAP supplied 754.7 million pounds of commodities to community emergency food providers.

Table S-11

### Use of food pantries and emergency kitchens, 2018

Category	Pantries			Kitchens		
	Total <sup>1</sup>	Users		Total <sup>1</sup>	Users	
	1,000	1,000	Percent	1,000	1,000	Percent
All households	128,879	5,687	4.4	128,870	657	0.5
All persons in households	321,970	14,600	4.5	321,897	1,230	0.4
Adults in households	248,718	10,118	4.1	248,664	986	0.4
Children in households	73,252	4,482	6.1	73,233	244	0.3
Households by food security status:						
Food-secure households	114,688	1,949	1.7	114,670	162	0.1
Food-insecure households	14,129	3,737	26.4	14,150	494	3.5
Households with low food security	8,637	1,852	21.4	8,657	147	1.7
Households with very low food security	5,492	1,886	34.3	5,492	347	6.3

<sup>1</sup>Totals 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, 2018 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, 2018

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	34.5	65.5	32.6	32.9
Did not receive emergency food from food pantry previous 12 months	77.2	22.8	14.4	8.4
Ate meal at emergency kitchen previous 12 months	23.6	76.4	24.5	51.9
Did not eat meal at emergency kitchen previous 12 months	71.8	28.2	16.9	11.3

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2018 Current Population Survey Food Security Supplement.

Table S-13

**Use of food pantries, by selected household characteristics, 2018**

Category	Total <sup>1</sup>	Pantry users	
	1,000	1,000	Percent
All households	128,879	5,687	4.4
Household composition:			
With children < 18 yrs	37,468	2,026	5.4
At least one child < 6 yrs	16,240	862	5.3
Married-couple families	24,548	687	2.8
Female head, no spouse	9,289	1,085	11.7
Male head, no spouse	3,211	210	6.5
Other household with child <sup>2</sup>	420	43	10.2
With no children < 18 yrs	91,411	3,661	4.0
More than one adult	54,179	1,520	2.8
Women living alone	20,186	1,312	6.5
Men living alone	17,045	830	4.9
With elderly	39,053	1,365	3.5
Elderly living alone	14,953	707	4.7
Race/ethnicity of households:			
White, non-Hispanic	84,833	2,705	3.2
Black, non-Hispanic	16,528	1,643	9.9
Hispanic <sup>3</sup>	18,000	1,020	5.7
Other, non-Hispanic	9,519	319	3.4
Household income-to-poverty ratio:			
Under 1.00	12,015	2,335	19.4
Under 1.30	16,911	2,974	17.6
Under 1.85	26,627	3,816	14.3
1.85 and over	70,738	886	1.3
Income unknown	31,514	985	3.1
Area of residence: <sup>4</sup>			
Inside metropolitan area	110,699	4,542	4.1
In principal cities <sup>5</sup>	37,732	1,781	4.7
Not in principal cities	55,702	1,892	3.4
Outside metropolitan area	18,180	1,145	6.3
Census geographic region:			
Northeast	22,435	882	3.9
Midwest	27,725	1,311	4.7
South	49,677	2,214	4.5
West	29,043	1,279	4.4

<sup>1</sup>Totals exclude households that did not answer the question about getting food from a food pantry. These exclusions represented 0.7 percent of all households.

<sup>2</sup>Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

<sup>3</sup>Hispanics may be of any race.

<sup>4</sup>Metropolitan 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.

<sup>5</sup>Households 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, 2018 Current Population Survey Food Security Supplement.

## Food Spending by Households That Received Food and Nutrition Assistance

Table S-14 presents median food spending relative to the cost of the Thrifty Food Plan by households that received food and nutrition assistance and by nonparticipant households in similar low-income ranges.<sup>10</sup>

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, 2018

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 <sup>1</sup> benefits previous 30 days	0.96
Did not receive SNAP <sup>1</sup> benefits previous 30 days	1.07
Income less than 185 percent of poverty line; school-age children in household:	
Received free or reduced-price school lunch previous 30 days	0.94
Did not receive free or reduced-price school lunch previous 30 days	0.97
Income less than 185 percent of poverty line; children under age 5 in household:	
Received WIC <sup>2</sup> previous 30 days	0.94
Did not receive WIC <sup>2</sup> previous 30 days	1.00
Income less than 185 percent of poverty line:	
Received emergency food from food pantry previous 12 months	0.92
Did not receive emergency food from food pantry previous 12 months	1.08

<sup>1</sup>SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.

<sup>2</sup>WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

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

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2018 Current Population Survey Food Security Supplement.

<sup>10</sup>Food purchased with SNAP benefits is included in household food spending as calculated here. However, the value of school lunches and food obtained through the Special Supplemental Nutrition Program for Women, Infants, and Children (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 nonparticipant households in similar low-income ranges. This complements table 8 of *Household Food Security in the United States in 2018* (Coleman-Jensen et al., 2019), which is based on the 12-month measure. Measured food insecurity and reported use of food and nutrition assistance programs are more likely to refer to contemporaneous conditions when both are referenced to the previous 30 days than when one or both are referenced to the previous 12 months.

Table S-15

### Prevalence of food insecurity during the 30 days prior to the food security survey, by participation in selected Federal and community food and nutrition assistance programs, 2018<sup>1</sup>

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 <sup>2</sup> benefits previous 30 days	27.6	13.1
Received SNAP <sup>2</sup> benefits in every month during the previous 12 months	27.3	13.0
Received SNAP <sup>2</sup> benefits previous 12 months but not previous 30 days (SNAP leavers)	34.5	14.0
Did not receive SNAP <sup>2</sup> benefits previous 12 months	12.5	5.2
Income less than 185 percent of poverty line; school-age children in household:		
Received free or reduced-price school lunch previous 30 days	21.9	8.0
Did not receive free or reduced-price school lunch previous 30 days	8.9	2.6
Income less than 185 percent of poverty line; children under age 5 in household:		
Received WIC <sup>3</sup> previous 30 days	20.9	8.1
Did not receive WIC <sup>3</sup> previous 30 days	11.8	3.4
Income less than 185 percent of poverty line:		
Received emergency food from food pantry previous 30 days	50.9	28.1
Did not receive emergency food from food pantry previous 30 days	13.1	5.3

<sup>1</sup>The 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 9-18, 2018. 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.

<sup>2</sup>SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.

<sup>3</sup>WIC = 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, 2018 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. Designing and managing these programs so they function effectively together as a nutrition safety net requires knowledge of 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,<sup>1</sup> 2018

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 <sup>2</sup> benefits previous 30 days	29.4	52.7	3.7	57.8
Received free or reduced-price school lunch previous 30 days	20.0	28.5	1.4	17.3
Received WIC <sup>3</sup> previous 30 days	21.0	9.4	NA	NA
Participated in one or more of the three Federal programs	24.2	66.2	2.7	63.2
Did not participate in any of the three Federal programs	8.0	33.8	1.0	36.8

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

<sup>1</sup>Analysis 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.

<sup>2</sup>SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.

<sup>3</sup>WIC = 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, 2018 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 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. 2018. *Statistical Supplement to Household Food Security in the United States in 2017*, AP-079, USDA, Economic Research Service.
- Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2019. *Household Food Security in the United States in 2018*, ERR-270, 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 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.
- 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.
- 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, California, 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.