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Household Food Security in the United States in 2015

Alisha Coleman-Jensen
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Christian A. Gregory
Anita Singh

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Household Food Security in the United States in 2015

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Abstract

An estimated 87.3 percent of American households were food secure throughout the entire year in 2015, meaning that they had access at all times to enough food for an active, healthy life for all household members. The remaining households (12.7 percent) were food insecure at least some time during the year, including 5.0 percent with very low food security, meaning that the food intake of one or more household members was reduced and their eating patterns were disrupted at times during the year because the household lacked money and other resources for food. Declines from 2014 in food insecurity overall and in very low food security were statistically significant. The prevalence rate of food insecurity overall declined from 14.0 percent in 2014, and very low food security declined from 5.6 percent in 2014. Food insecurity among children and very low food security among children also declined significantly from 2014. Children and adults were food insecure in 7.8 percent of households with children in 2015, down from 9.4 percent in 2014. Very low food security among children was 0.7 percent in 2015, down from 1.1 percent in 2014. In 2015, the typical food-secure household spent 27 percent more on food than the typical food-insecure household of the same size and household composition. About 59 percent of food-insecure households participated in one or more of the three largest Federal food and nutrition assistance programs during the month prior to the 2015 survey.

Keywords: Food security, food insecurity, food spending, food pantry, soup kitchen, emergency kitchen, material well-being, material hardship, Supplemental Nutrition Assistance Program, SNAP, Food Stamp Program, National School Lunch Program, Special Supplemental Nutrition Program for Women, Infants, and Children, WIC

About the Authors

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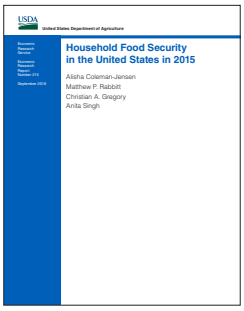

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Household Food Security in the United States in 2015

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

What Is the Issue?

Most U.S. households have consistent, dependable access to enough food for active, healthy living—they are food secure. But some American households experience food insecurity at times during the year, meaning their access to adequate food is limited by a lack of money and other resources. USDA's food and nutrition assistance programs increase food security by providing low-income households access to food, a healthful diet, and nutrition education. USDA monitors the extent and severity of food insecurity in U.S. households through an annual, nationally representative survey sponsored and analyzed by USDA's Economic Research Service (ERS). This report presents statistics from the survey covering households' food security, food expenditures, and use of Federal food and nutrition assistance programs in 2015.

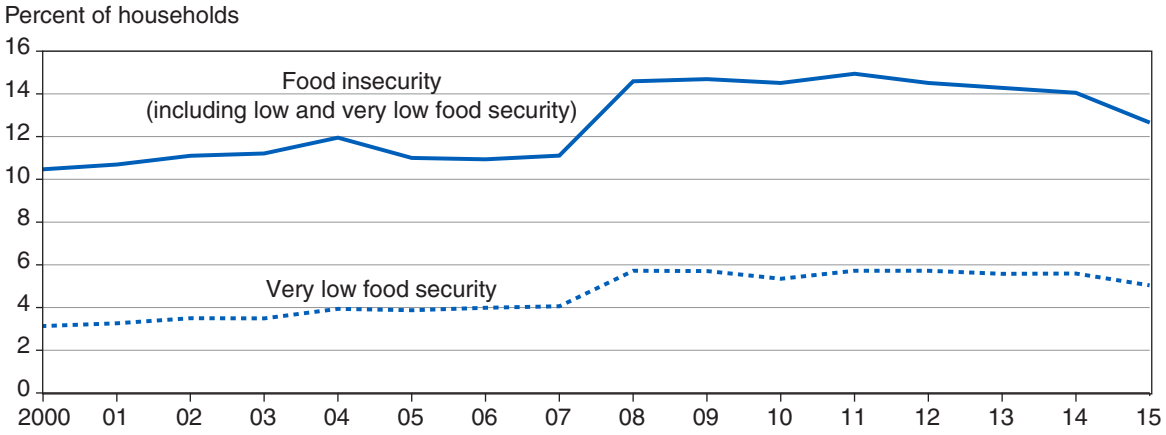
What Did the Study Find?

The estimated percentage of U.S. households that were food insecure in 2015 declined significantly from 2014, to 12.7 percent, continuing a downward trend in food insecurity from a high of 14.9 percent in 2011. The 2015 prevalence of food insecurity was still above the 2007 pre-recessionary level of 11.1 percent. In 2015, the percentage of households with food insecurity in the severe range—very low food security—also declined significantly.

- In 2015, 87.3 percent of U.S. households were food secure throughout the year. The remaining 12.7 percent (15.8 million households) were food insecure. Food-insecure households (those with low and very low food security) had difficulty at some time during the year providing enough food for all their members due to a lack of resources. The decline from 2014 (14.0 percent) was statistically significant.
- In 2015, 5.0 percent of U.S. households (6.3 million households) had *very low food security,* down from 5.6 percent in 2014. In this more severe range of food insecurity, the food intake of some household members was reduced and normal eating patterns were disrupted at times during the year due to limited resources. This decline was also statistically significant.
- Children were food insecure at times during the year in 7.8 percent of U.S. households with children (3.0 million households), down significantly from 9.4 percent in 2014. These households were unable at times during the year to provide adequate, nutritious food for their children.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

Prevalence of food insecurity and very low food security in 2015 is down from 2014



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

- While children are usually shielded from the disrupted eating patterns and reduced food intake that characterize very low food security, both children and adults experienced instances of very low food security in 0.7 percent of households with children (274,000 households) in 2015. The decline from 2014 (1.1 percent) was statistically significant.
- For households with incomes near or below the Federal poverty line, households with children headed by single women or single men, women and men living alone, and Black- and Hispanic-headed households, the rates of food insecurity were substantially higher than the national average.
- The prevalence of food insecurity varied considerably from State to State. Estimated prevalence of food insecurity in 2013-15 ranged from 8.5 percent in North Dakota to 20.8 percent in Mississippi. (Data for 3 years were combined to provide more reliable State-level statistics.)
- The typical (median) food-secure household spent 27 percent more for food than the typical food-insecure household of the same size and composition, including food purchased with Supplemental Nutrition Assistance Program (SNAP) benefits.
- About 59 percent of food-insecure households in the survey reported that in the previous month, they had participated in one or more of the three largest Federal nutrition assistance programs (SNAP; Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); and National School Lunch Program).

How Was the Study Conducted?

Data for the ERS food security reports come from an annual survey conducted by the U.S. Census Bureau as a supplement to the monthly Current Population Survey. ERS sponsors the annual survey and compiles and analyzes the responses. The 2015 food security survey covered 39,948 households comprising a representative sample of the U.S. civilian population of 125 million households. The food security survey asked one adult respondent per household questions about experiences and behaviors that indicate food insecurity, such as being unable to afford balanced meals, cutting the size of meals because of too little money for food, or being hungry because of too little money for food. The food security status of the household was assigned based on the number of food-insecure conditions reported.

Household Food Security in the United States in 2015

Introduction

Since 1995, the U.S. Department of Agriculture has collected information annually on food access and adequacy, food spending, and sources of food assistance for the U.S. population. The information is collected in an annual survey, the Food Security Supplement, conducted by the U.S. Census Bureau as a supplement to the nationally representative Current Population Survey.[1] A major impetus for this data collection is to provide information about the prevalence and severity of food insecurity in U.S. households. Previous reports in the series are available at: http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/readings.aspx/.

This report updates the national statistics on food security, household food spending, and the use of Federal food and nutrition assistance by food-insecure households, using data collected in the December 2015 food security survey—the 21st annual survey in the Nation's food security monitoring system. Additional statistics, including the prevalence of food insecurity during the 30 days prior to the food security survey, the frequency of occurrence of food-insecure conditions, and use of food pantries and emergency kitchens are available online at: http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx.

[1]See http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/history-background.aspx for the history of the food security measurement project and the development of the food security measures.

Household Food Security

Food security—access by all people at all times to enough food for an active, healthy life—is one of several conditions necessary for a population to be healthy and well nourished. This section provides information on food security and food insecurity in U.S. households over the course of the year ending in December 2015.

Methods

The statistics presented in this report are based on data collected in the Food Security Supplement to the Current Population Survey (CPS) conducted in December 2015. The CPS currently includes about 53,000 households and is representative, at State and national levels, of the civilian, noninstitutionalized population of the United States. In December 2015, 39,948 households completed the Food Security Supplement; the remainder were unable or unwilling to do so. Survey sample weights were calculated by the U.S. Census Bureau to indicate how many households were represented by each household that responded to the survey.[2] All statistics in this report were calculated by applying the Food Security Supplement weights to responses by the surveyed households so the statistics are nationally representative.

Unless otherwise noted, statistical differences described in the text are significant at the 90-percent confidence level.[3]

The household food security statistics presented in this report are based on a measure of food security calculated from responses to a series of questions about conditions and behaviors that characterize households when they are having difficulty meeting basic food needs.[4] Each question asks whether the condition or behavior occurred at any time during the previous 12 months and specifies a lack of money and other resources to obtain food as the reason. Voluntary fasting or dieting to lose weight are thereby excluded from the measure. The series includes three questions about food conditions of the household as a whole and seven about food conditions of adults in the household and, if there are children present in the household, an additional eight questions about their food conditions (see box, "Questions Used To Assess the Food Security of Households in the CPS Food Security Survey," page 3). Responses to the 18 food security questions are reported in tables S-5 to S-7 of the

[2]Reweighting of the Supplement takes into consideration income and other information about households that completed the labor-force portion of the survey but not the Food Security Supplement. This corrects, to some extent, biases that could result from nonresponse to the supplement by households that completed only the labor-force part of the survey.

[3]Standard errors of national-level estimates from 2011 to the present were calculated using balanced repeated replication (BRR) methods based on replicate weights computed for the CPS food security supplement by the U.S. Census Bureau (see http://www.ers.usda.gov/data-products/food-security-in-the-united-states/documentation.aspx#cps). For years before 2011, standard errors of national estimates use a design factor of 1.6 based on the complex CPS sample design. State-level estimates from 2010 to the present use replicate weights computed for the CPS food security supplement. Before 2010, standard errors of State-level estimates were calculated using jack-knife replication methods with "month in sample" groups considered as separate, independent samples. The report uses the phrase essentially unchanged to describe differences between estimates of a statistic for 2 years that are not statistically significant at the 90-percent confidence level.

[4]The methods used to measure the extent and severity of food insecurity have been described in several places (Hamilton et al., 1997a, 1997b; Andrews et al., 1998; Bickel et al., 1998; Carlson et al., 1999; Bickel et al., 2000; Nord and Bickel, 2002). See also the assessment of the measurement methods by a panel of the Committee on National Statistics (National Research Council, 2006). Further details on the development of the measure are provided on the ERS website at http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/history-background.aspx.

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)

Statistical Supplement, (http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx). The food security status of each interviewed household is determined by the number of food-insecure conditions and behaviors the household reports. Households are classified as *food secure* if they report no food-insecure conditions or if they report only one or two food-insecure conditions. (Food-insecure conditions are indicated by responses of "often" or "sometimes" to questions 1-3 and 11-13; "almost every month" or "some months but not every month" to questions 5, 10, and 17; and "yes" to the other questions.) They are classified as *food insecure* if they report three or more food-insecure conditions.[5] Households are classified as having *food-insecure children* if they report two or more food-insecure conditions among the children in response to questions 11-18.[6]

Food-insecure households are further classified as having either *low food security* or *very low food security.*[7] The very low food security category identifies households in which the food intake of one or more members was reduced and eating patterns disrupted because of insufficient money and other resources for food. Households without children are classified as having *very low food security* if they report six or more food-insecure conditions. Households with children age 0-17 are classified as having *very low food security* if they report eight or more food-insecure conditions among adults and/or children (see box, "What Is 'Very Low Food Security'?" on page 5). [8] They are further classified as having *very low food security among children* if they report five or more food-insecure conditions among the children (that is, if they respond affirmatively to five or more of questions 11-18).

Low and very low food security differ in the extent and character of the adjustments the household makes to its eating patterns and food intake. Households classified as having *low food security* have reported multiple indications of food acquisition problems and reduced diet quality, but typically have reported few, if any, indications of reduced food intake. Those classified as having *very low food security* have reported multiple indications of reduced food intake and disrupted eating patterns due to inadequate resources for food. In most, but not all, households with *very low food security,* the survey respondent reported that he or she was hungry at some time during the year but did not eat because there was not enough money for food.

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[5]To reduce the burden on higher income respondents, households with incomes above 185 percent of the Federal poverty line that give no indication of food-access problems on either of two preliminary screening questions are deemed to be food secure and are not asked the questions in the food security assessment series. The preliminary screening questions are as follows:

- People do different things when they are running out of money for food in order to make their food or their food money go further. In the last 12 months, since December of last year, did you ever run short of money and try to make your food or your food money go further?
- Which of these statements best describes the food eaten in your household—enough of the kinds of food we want to eat, enough but not always the kinds of food we want to eat, sometimes not enough to eat, or often not enough to eat?

[6]Both qualitative and quantitative research studies have suggested that parents' reports of their children's food insecurity sometimes differed from adolescents self-reported food insecurity and that parents were sometimes unaware of the degree to which children reduced their own food intake due to household food insecurity (Fram et al., 2011; Nord and Hanson, 2012). The extent to which underreporting of children's food insecurity may exist is unknown (see p. 9-10 in Coleman-Jensen, McFall, and Nord, 2013 for a discussion of research on parent-reported and self-reported food insecurity among children).

[7]Prior to 2006, households with low food security were described as "food insecure without hunger" and households with very low food security were described as "food insecure with hunger." Changes in these descriptions were made in 2006 at the recommendation of the Committee on National Statistics (National Research Council, 2006) in order to distinguish the physiological state of hunger from indicators of food availability. The criteria by which households were classified remained unchanged.

[8]Implications of differences in raw score thresholds for very low food security between households with and without children are discussed in Nord and Coleman-Jensen (2014).

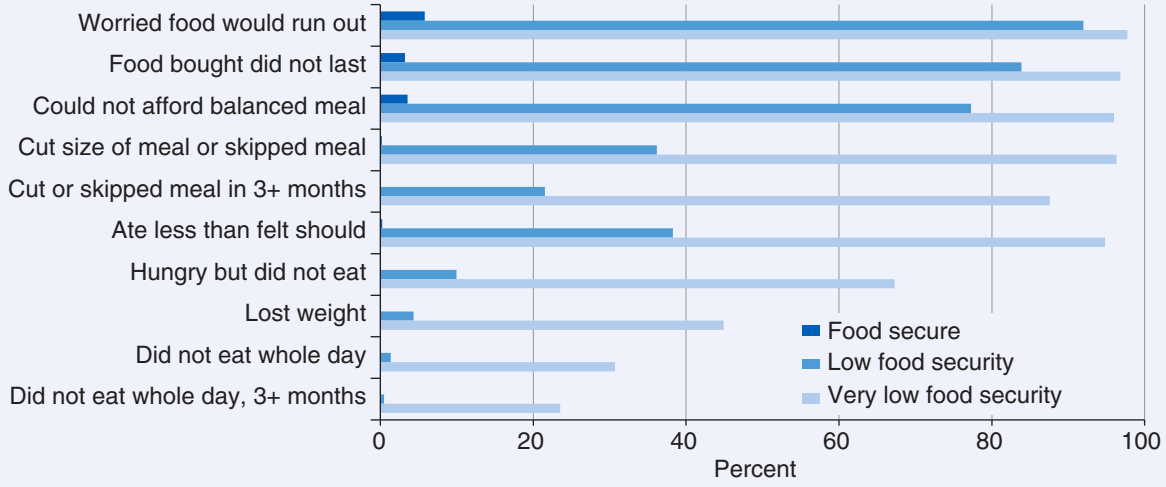
What Is "Very Low Food Security"?

Very low food security can be characterized in terms of the conditions that households in this category reported in the food security survey. Households without children classified as having very low food security reported six or more food-insecure conditions, and households with children reported eight or more food-insecure conditions, including conditions among both adults and children. Thus, the defining characteristic of "very low food security" is that, at times during the year, the food intake of household members was reduced and their normal eating patterns were disrupted because the household lacked money and other resources for food. In the 2015 survey, households classified as having very low food security (representing an estimated 6.3 million households nationwide) reported the following specific conditions:

- 98 percent reported having worried that their food would run out before they got money to buy more.
- 97 percent reported that the food they bought just did not last and they did not have money to get more.
- 96 percent reported that they could not afford to eat balanced meals.
- 96 percent reported that an adult had cut the size of meals or skipped meals because there was not enough money for food.
- 88 percent reported that this had occurred in 3 or more months.
- 95 percent reported that they had eaten less than they felt they should because there was not enough money for food.
- 67 percent reported that they had been hungry but did not eat because they could not afford enough food.
- 45 percent reported having lost weight because they did not have enough money for food.
- 31 percent reported that an adult did not eat for a whole day because there was not enough money for food.
- 24 percent reported that this had occurred in 3 or more months.

As noted above, all households without children classified as having very low food security reported at least six of these conditions. The majority of households with very low food security, 65 percent, reported seven or more food-insecure conditions. (Conditions reported by households with children were similar to those without children, but the reported food-insecure conditions of both adults and children were taken into account.)

Percentage of households reporting each indicator of food insecurity, by food security status, 2015



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

Prevalence of Food Insecurity—National Conditions and Trends

An estimated 87.3 percent of U.S. households were food secure throughout the entire year in 2015 (fig. 1, table 1A). In concept, "food secure" means that all household members had access at all times to enough food for an active, healthy life (Anderson, 1990).[9] The remaining 12.7 percent (15.8 million households) were food insecure at some time during the year. That is, they were, at times, unable to acquire adequate food for one or more household members because they had insufficient money and other resources for food. A majority of food-insecure households—those classified as having low food security—avoided substantial reductions or disruptions in food intake, in many cases by relying on a few basic foods and reducing variety in their diets. But 5.0 percent (6.3 million households) had very low food security—that is, they were food insecure to the extent that eating patterns of one or more household members were disrupted and their food intake reduced, at least some time during the year, because they could not afford enough food.

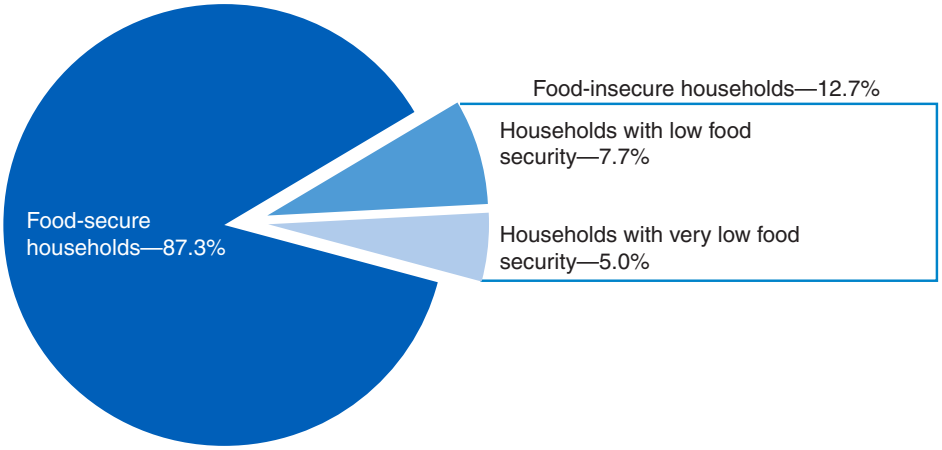
Among U.S. households with children under age 18, 83.4 percent were food secure in 2015. The remaining 16.6 percent of households with children were food insecure at some time during the year (fig. 2, table 1B). This prevalence is down significantly from 19.2 percent in 2014. Parents and caregivers often are able to maintain normal or near-normal diets and meal patterns for their children, even when the parents themselves are food insecure. In about half of food-insecure households with children in 2015, only adults were food insecure (8.8 percent of households with children). However, both children and adults were food insecure in 7.8 percent of households with children (3.0 million households). In 0.7 percent of households with children (274,000 households), food insecurity among children was so severe that caregivers reported that children were hungry, skipped a meal, or did not eat for a whole day because there was not enough money for food (table 1B). These households are described as having very low food security among children. In some households with very low food security among children, only older children may have experienced the more severe effects of food insecurity, while younger children were protected from those effects (Coleman-Jensen et al., 2013; Nord, 2009a).

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. Within a food-insecure household, each household member may be affected differently by the household's food insecurity. Some members—particularly young children—may experience only mild effects or none at all, while adults are 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."

In 2015, 42.2 million people lived in food-insecure households (see table 1A). They constituted 13.4 percent of the U.S. civilian noninstitutionalized population and included 29.1 million adults and 13.1 million children (see table 1B). About 6.4 million children (8.7 percent) lived in households in which

[9]Food security statistics, as operationally measured for this report using survey data, are based on household responses to items about whether the household was able to obtain enough food to meet their needs. This operational measure does not specifically address whether the household members' food intake was sufficient for active, healthy lives, the conceptual definition of food security. Nonetheless, research based on other data collections has found survey-based measures of food security to be statistically associated with various outcomes involving health, nutrition, and children's development in a manner that generally supports the link between the report's survey-based measure of food security and the conceptual definition of food security (see, for example, Coleman-Jensen et al., 2013; Nord, 2009a; Nord and Hopwood, 2007; Nord and Kantor, 2006).

Figure 1
U.S. households by food security status, 2015



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 1A
Households and individuals by food security status of household, 1998-2015

Category and year	Total[1]	Food secure		Food insecure					
				All		With low food security		With very low food security	
	1,000	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*
Households:									
2015	125,164	109,315	87.3	15,849	12.7	9,540	7.7	6,309	5.0
2014	124,044	106,618	86.0	17,426	14.0	10,488	8.4	6,938	5.6
2013	122,579	105,070	85.7	17,509	14.3	10,664	8.7	6,845	5.6
2012	121,546	103,914	85.5	17,632	14.5	10,679	8.8	6,953	5.7
2011	119,484	101,631	85.1	17,853	14.9	11,014	9.2	6,839	5.7
2010	118,756	101,527	85.5	17,229	14.5	10,872	9.1	6,357	5.4
2009	118,174	100,820	85.3	17,354	14.7	10,601	9.0	6,753	5.7
2008	117,565	100,416	85.4	17,149	14.6	10,426	8.9	6,723	5.7
2007	117,100	104,089	88.9	13,011	11.1	8,262	7.0	4,749	4.1
2006	115,609	102,961	89.1	12,648	10.9	8,031	6.9	4,617	4.0
2005	114,437	101,851	89.0	12,586	11.0	8,158	7.1	4,428	3.9
2004	112,967	99,473	88.1	13,494	11.9	9,045	8.0	4,449	3.9
2003	112,214	99,631	88.8	12,583	11.2	8,663	7.7	3,920	3.5
2002	108,601	96,543	88.9	12,058	11.1	8,259	7.6	3,799	3.5
2001	107,824	96,303	89.3	11,521	10.7	8,010	7.4	3,511	3.3
2000	106,043	94,942	89.5	11,101	10.5	7,786	7.3	3,315	3.1
1999	104,684	94,154	89.9	10,529	10.1	7,420	7.1	3,109	3.0
1998	103,309	91,121	88.2	12,188	11.8	8,353	8.1	3,835	3.7
All individuals (by food security status of household):[2]									
2015	316,161	273,923	86.6	42,238	13.4	27,605	8.7	14,633	4.6
2014	313,305	265,170	84.6	48,135	15.4	30,922	9.9	17,213	5.5
2013	310,853	261,775	84.2	49,078	15.8	31,974	10.3	17,104	5.5

Continued—

Table 1A

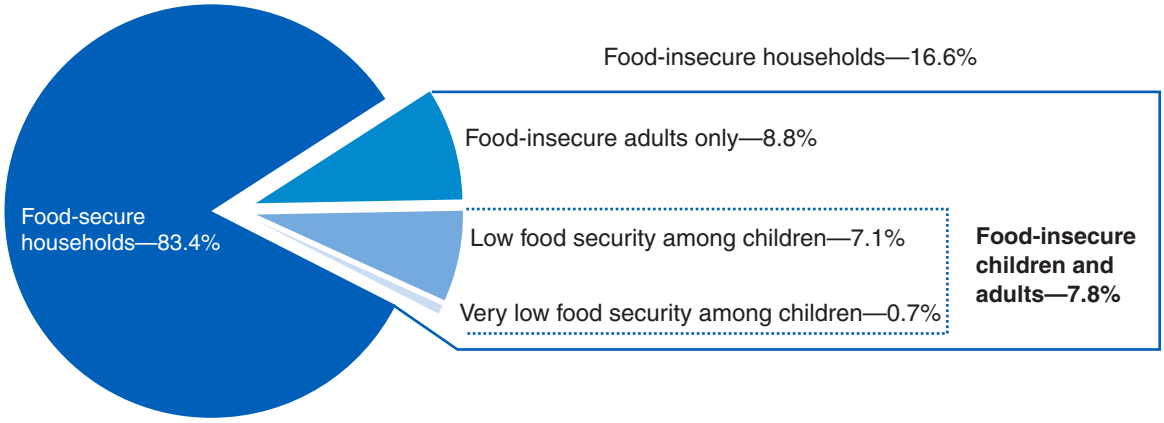
Households and individuals by food security status of household, 1998-2015—continued

Category and year	Total[1]	Food secure		Food insecure					
				All		With low food security		With very low food security	
	1,000	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*
2012	308,361	259,395	84.1	48,966	15.9	31,787	10.3	17,179	5.6
2011	305,893	255,773	83.6	50,120	16.4	33,232	10.9	16,888	5.5
2010	304,034	255,202	83.9	48,832	16.1	32,777	10.8	16,055	5.3
2009	301,750	251,588	83.4	50,162	16.6	32,499	10.8	17,663	5.9
2008	299,567	250,459	83.6	49,108	16.4	31,824	10.6	17,284	5.8
2007	297,042	260,813	87.8	36,229	12.2	24,287	8.2	11,942	4.0
2006	294,010	258,495	87.9	35,515	12.1	24,395	8.3	11,120	3.8
2005	291,501	256,373	87.9	35,128	12.1	24,349	8.4	10,779	3.7
2004	288,603	250,407	86.8	38,196	13.2	27,535	9.5	10,661	3.7
2003	286,410	250,155	87.3	36,255	12.7	26,622	9.3	9,633	3.4
2002	279,035	244,133	87.5	34,902	12.5	25,517	9.1	9,385	3.4
2001	276,661	243,019	87.8	33,642	12.2	24,628	8.9	9,014	3.3
2000	273,685	240,454	87.9	33,231	12.1	24,708	9.0	8,523	3.1
1999	270,318	239,304	88.5	31,015	11.5	23,237	8.6	7,779	2.9
1998	268,366	232,219	86.5	36,147	13.5	26,290	9.8	9,857	3.7
Adults (by food security status of household):[2]									
2015	242,706	213,586	88.0	29,120	12.0	18,235	7.5	10,885	4.5
2014	239,937	207,125	86.3	32,812	13.7	20,425	8.5	12,387	5.2
2013	237,219	203,913	86.0	33,306	14.0	21,115	8.9	12,191	5.1
2012	234,730	201,662	85.9	33,068	14.1	20,708	8.8	12,359	5.3
2011	231,385	197,923	85.5	33,462	14.5	21,371	9.2	12,091	5.2
2010	229,129	196,505	85.8	32,624	14.2	21,357	9.3	11,267	4.9
2009	227,543	194,579	85.5	32,964	14.5	20,741	9.1	12,223	5.4
2008	225,461	193,026	85.6	32,435	14.4	20,320	9.0	12,115	5.4
2007	223,467	199,672	89.4	23,795	10.6	15,602	7.0	8,193	3.7
2006	220,423	197,536	89.6	22,887	10.4	15,193	6.9	7,694	3.5
2005	217,897	195,172	89.6	22,725	10.4	15,146	7.0	7,579	3.5
2004	215,564	191,236	88.7	24,328	11.3	16,946	7.9	7,382	3.4
2003	213,441	190,451	89.2	22,990	10.8	16,358	7.7	6,632	3.1
2002	206,493	184,718	89.5	21,775	10.5	15,486	7.5	6,289	3.0
2001	204,340	183,398	89.8	20,942	10.2	14,879	7.3	6,063	3.0
2000	201,922	181,586	89.9	20,336	10.1	14,763	7.3	5,573	2.8
1999	198,900	179,960	90.5	18,941	9.5	13,869	7.0	5,072	2.5
1998	197,084	174,964	88.8	22,120	11.2	15,632	7.9	6,488	3.3

[1]Totals exclude households for which food security status is unknown because household respondents did not give a valid response to any of the questions in the food security scale. In 2015, these exclusions represented 381,000 households (0.3 percent of all households).
[2]The food security survey measures food security status at the household level. Not all individuals residing in food-insecure households were directly affected by the households' food insecurity. Similarly, not all individuals in households classified as having very low food security were subject to the reductions in food intake and disruptions in eating patterns that characterize this condition. Young children, in particular, are often protected from effects of the households' food insecurity.

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

Figure 2
U.S. households with children by food security status of adults and children, 2015



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

one or more child was food insecure. About 10.9 million adults (4.5 percent) lived in households with very low food security (see table 1A), and 541,000 children (0.7 percent) lived in households with very low food security among children (see table 1B).

Statistical Supplement tables S-2 and S-3 present estimates of the number of people and the number of children in households in each food security status and household type (http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx).

When interpreting food security statistics in this report, the reader should keep in mind that households were classified as having low or very low food security if they experienced the condition at any time during the previous 12 months. The prevalence of these conditions on any given day is far below the corresponding annual prevalence. For example, the prevalence of very low food security during the 30 days prior to the survey is 2.9 percent (table S-4) and the prevalence on an average day during the 30-day period prior to the December 2015 survey is estimated to have been between 0.6 and 1.0 percent of households (0.8 million to 1.3 million households; see box, "When Food Insecurity Occurs in U.S. Households, It Is Usually Recurrent But Not Chronic," on page 11).[10] Children, along with adults, experienced very low food security in an estimated 56,000 to 68,000 households (0.14 to 0.18 percent of all U.S. households with children) on an average day during the same period.

The decline in food insecurity from 14.0 percent in 2014 to 12.7 percent in 2015 was statistically significant. Prior to that, the prevalence of food insecurity was essentially unchanged from 2013 to 2014 and from 2012 to 2014. That is, the changes were within the range that could have resulted

[10]Average daily prevalence of the various behaviors, experiences, and conditions characterizing very low food security was calculated based on the proportion of households reporting the condition at any time during the previous 30 days and the average number of days in which the condition occurred. The average daily prevalence for each condition is calculated as the product of the 30-day prevalence and the average number of days experienced divided by 30. The ratio of daily prevalence to monthly prevalence of the various indicator conditions provides the basis for approximating the average daily prevalence of very low food security during the reference 30-day period. The daily rate of very low food security is expressed as a range whose lower and upper bounds are based on the minimum and maximum ratio of daily prevalence to 30-day prevalence. See table S-9 in the online Statistical Supplement, http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx.

Table 1B

Households with children by food security status and children by food security status of household, 1998-2015

Category and year	Total[1]	Food-secure households		Food-insecure households[2]		Households with food-insecure children[3]		Households with very low food security among children	
	1,000	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*
Households with children:									
2015	38,978	32,519	83.4	6,459	16.6	3,022	7.8	274	0.7
2014	39,079	31,590	80.8	7,489	19.2	3,665	9.4	422	1.1
2013	38,486	30,978	80.5	7,508	19.5	3,814	9.9	360	.9
2012	39,201	31,354	80.0	7,847	20.0	3,910	10.0	463	1.2
2011	38,803	30,814	79.4	7,989	20.6	3,862	10.0	374	1.0
2010	39,419	31,447	79.8	7,972	20.2	3,861	9.8	386	1.0
2009	39,525	31,114	78.7	8,411	21.3	4,208	10.6	469	1.2
2008	39,699	31,364	79.0	8,335	21.0	4,361	11.0	506	1.3
2007	39,390	33,160	84.2	6,230	15.8	3,273	8.3	323	.8
2006	39,436	33,279	84.4	6,157	15.6	3,312	8.4	221	.6
2005	39,601	33,404	84.4	6,197	15.6	3,244	8.2	270	.7
2004	39,990	32,967	82.4	7,023	17.6	3,808	9.5	274	.7
2003	40,286	33,575	83.3	6,711	16.7	3,606	9.0	207	.5
2002	38,647	32,267	83.5	6,380	16.5	3,456	8.9	265	.7
2001	38,330	32,141	83.9	6,189	16.1	3,225	8.4	211	.6
2000	38,113	31,942	83.8	6,171	16.2	3,282	8.6	255	.7
1999	37,884	32,290	85.2	5,594	14.8	3,089	8.2	219	.6
1998	38,036	31,335	82.4	6,701	17.6	3,627	9.5	331	.9
Children (by food security status of household):[4]									
2015	73,455	60,337	82.1	13,118	17.9	6,377	8.7	541	0.7
2014	73,368	58,045	79.1	15,323	20.9	7,949	10.8	914	1.2
2013	73,634	57,862	78.6	15,772	21.4	8,585	11.7	765	1.0
2012	73,631	57,733	78.4	15,898	21.6	8,290	11.3	977	1.3
2011	74,508	57,850	77.6	16,658	22.4	8,565	11.5	845	1.1
2010	74,905	58,697	78.4	16,208	21.6	8,458	11.3	976	1.3
2009	74,207	57,010	76.8	17,197	23.2	8,957	12.1	988	1.3
2008	74,106	57,433	77.5	16,673	22.5	9,098	12.3	1,077	1.5
2007	73,575	61,140	83.1	12,435	16.9	6,766	9.2	691	.9
2006	73,587	60,959	82.8	12,628	17.2	7,065	9.6	430	.6
2005	73,604	61,201	83.1	12,403	16.9	6,718	9.1	606	.8
2004	73,039	59,171	81.0	13,868	19.0	7,823	10.7	545	.7
2003	72,969	59,704	81.8	13,265	18.2	7,388	10.1	420	.6
2002	72,542	59,415	81.9	13,127	18.1	7,397	10.2	567	.8
2001	72,321	59,620	82.4	12,701	17.6	6,866	9.5	467	.6
2000	71,763	58,867	82.0	12,896	18.0	7,018	9.8	562	.8
1999	71,418	59,344	83.1	12,074	16.9	6,996	9.8	511	.7
1998	71,282	57,255	80.3	14,027	19.7	7,840	11.0	716	1.0

[1]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 2015, these exclusions represented 110,000 households with children (0.3 percent of all households with children).

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

[3]In some food-insecure households with children, only adults were food insecure. Households with food-insecure children are those with low or very low food security among children.

[4]The food security survey measures food security status at the household level. Not all children residing in food-insecure households were directly affected by the households' food insecurity. Similarly, not all children in households classified as having very low food security among children were subject to the reductions in food intake and disruptions in eating patterns that characterize this condition. Young children, in particular, are often protected from effects of the households' food insecurity.

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

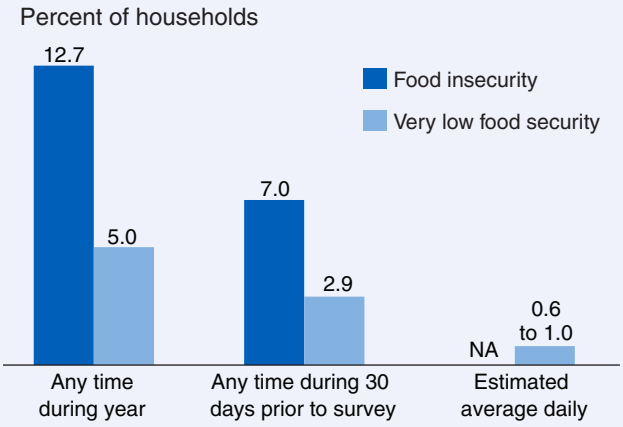
When Food Insecurity Occurs in U.S. Households, It Is Usually Recurrent But Not Chronic

When households experience very low food security in the United States, the resulting instances of reduced food intake and disrupted eating patterns are usually occasional or episodic but are not usually chronic. The food security measurement methods used in this report are designed to register these occasional or episodic occurrences. The questions used to assess households' food security status ask whether a condition, experience, or behavior occurred at any time in the past 12 months, and households can be classified as having very low food security based on a single, severe episode during the year. It is important to keep this aspect of the measure in mind when interpreting food insecurity statistics. Analyses of additional information collected in the food security survey on how frequently various food-insecure conditions occurred during the year, whether they occurred during the 30 days prior to the survey, and, if so, in how many days, provide insight into the frequency and duration of food insecurity in U.S. households. These analyses reveal that in 2015:

- About one-fourth of the households with very low food security at any time during the year experienced the associated conditions rarely or occasionally—in only 1 or 2 months of the year. For three-fourths of households, the conditions were recurring, experienced in 3 or more months of the year.
- For about one-fourth of food-insecure households and one-third of those with very low food security, occurrence of the associated conditions was frequent or chronic. That is, the conditions occurred often, or in almost every month.
- On average, households that were food insecure at some time during the year were food insecure in 7 months during the year. During the 30-day period ending in mid-December 2015, 8.7 million households (7.0 percent of all households) were food insecure—about 55 percent of the number that were food insecure at any time during the year (see Statistical Supplement table S-4, http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx).
- Similarly, households with very low food security at some time during the year experienced the associated conditions, on average, in 7 months during the year. During the 30-day period ending in mid-December 2015, 3.6 million households (2.9 percent of all households) had very low food security—about 58 percent of the number with very low food security at some time during the year (see Statistical Supplement table S-4, http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx).
- Most households that had very low food security at some time during a month experienced the associated conditions in 1 to 7 days of the month. The average daily prevalence of very low food security during the 30-day period ending in mid-December 2015 was probably between 0.8 million and 1.3 million households (0.6 to 1.0 percent of all households)—about 12 to 20 percent of the annual prevalence.
- The daily prevalence of very low food security among children during the 30-day period ending in mid-December 2015 was probably between 56,000 and 68,000 households (0.14 to 0.18 percent of households with children)—about 20 to 25 percent of the annual prevalence.
- The omission of homeless families and individuals from these daily statistics biases the statistics downward, and the bias may be substantial relative to the estimates, especially for the most severe conditions.

(Statistical Supplement tables S-7 to S-9 (http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx) provide information on how often conditions indicating food insecurity occurred, as reported by respondents to the December 2015 food security survey. See Nord et al., 2000, for more information about the frequency of food insecurity. See Ryu and Bartfeld, 2012; and Wilde et al., 2010, for more information about longer term patterns of food insecurity.)

Prevalence of food insecurity and very low food security, by reference period (2015)



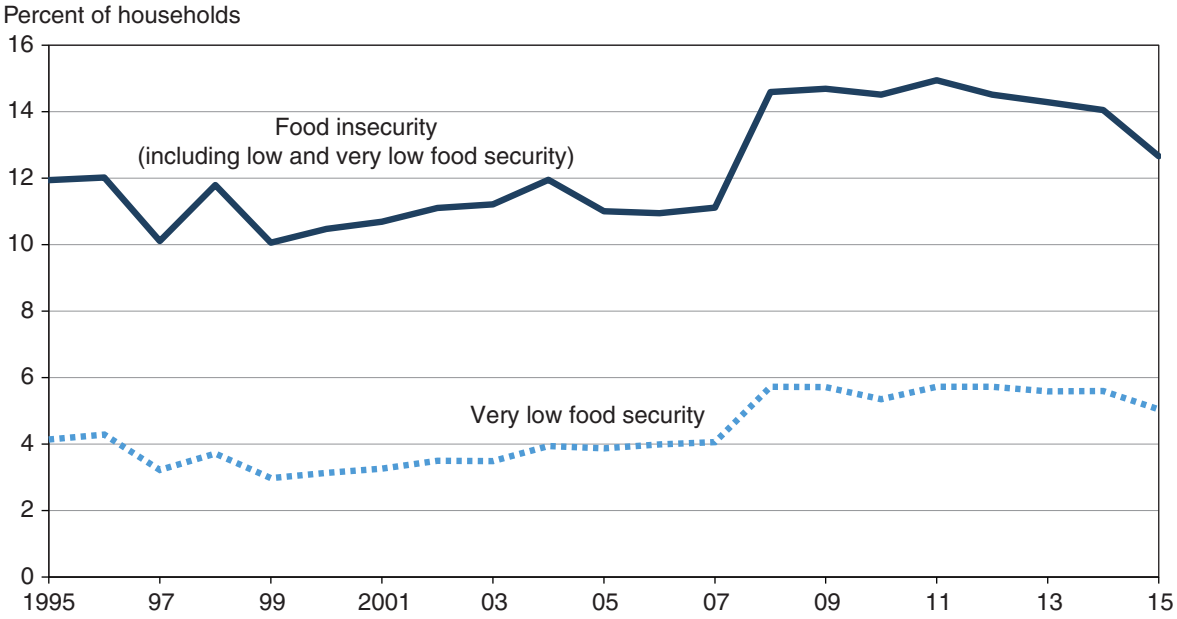
NA = Estimated average daily occurrence of food insecurity is not available because information was not collected on the number of days that less severe food-insecure conditions occurred.

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

from sampling variation. The cumulative decline from 2011 (14.9 percent) to 2014 (14.0 percent) was statistically significant, and that downward trend continued in 2015. Over the previous decade, food insecurity had increased from 10.5 percent in 2000 to nearly 12 percent in 2004, declined to 11 percent in 2005-07, then increased in 2008 (14.6 percent) and remained essentially unchanged at that level in 2009 and 2010 (fig. 3).[11]

The decline in very low food security from 5.6 percent in 2014 to 5.0 percent in 2015 was statistically significant. The prevalence of very low food security was essentially unchanged from 2011 (5.7 percent) through 2014 (5.6 percent). The prevalence of very low food security was also 5.7 percent in 2008 and 2009. In 2010, the prevalence of very low food security had declined to 5.4 percent.

Figure 3
Trends in the prevalence of food insecurity and very low food security in U.S. households, 1995-2015[1]



[1]Prevalence rates for 1996 and 1997 were adjusted for the estimated effects of differences in data collection screening protocols used in those years.

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

[11]Because of changes from year to year in screening procedures used to reduce respondent burden in the food security survey interviews, prevalence statistics calculated from the 1996 and 1997 data are not directly comparable with those for other years. The values presented in figure 3 for 1996 and 1997 are adjusted for the estimated effects of the differences in screening so as to be comparable with the statistics for other years. Screening procedures have remained essentially unchanged since 1998, and the procedures used in 1995 differed negligibly from those in 1998 and later years. See Andrews et al. (2000) and Ohls et al. (2001) for detailed information about questionnaire screening and adjustments for comparability. From 1995 to 2000, the prevalence rates reflected an overall decline in food insecurity but also a 2-year cyclical component that was associated with data collection schedules (Cohen et al., 2002). The CPS food security surveys over that period alternated between April in odd-numbered years and August or September in even-numbered years. The measured prevalence of food insecurity was higher in the August/September collections, suggesting a seasonal response effect. Since 2001, the survey has been conducted in early December, which avoids further problems of seasonality effects in interpreting annual changes. A smaller food security survey was also conducted in April 2001 to provide a baseline for assessing seasonal effects of data collection in December. Comparison of food security statistics from the April 2001 survey with those from April 1999 and December 2001 suggest that seasonal effects in early December were similar to those in April (Nord et al., 2002).

Prior to 2008, the prevalence of very low food security had increased from 3.1 percent in 2000 to 3.9 percent in 2004, and remained essentially unchanged through 2007.

Prevalence of Food Insecurity by Selected Household Characteristics

The prevalence of food insecurity varied considerably among households with different demographic and economic characteristics (table 2). Food insecurity was strongly associated with income. For example, 38.3 percent of households with annual incomes below the official poverty line (household income-to-poverty ratio under 1.00) were food insecure, compared with 5.8 percent of those with incomes at or above 185 percent of the poverty line.[12] Differences in food security across demographic and geographic groups reflect, in part, differences in income across those groups, as no adjustment is made for income in the statistics presented in this report.

Rates of food insecurity were below the national average of 12.7 percent for married-couple families with children (10.2 percent), households with more than one adult and no children (8.5 percent), and households with elderly persons (8.3 percent).[13] The prevalence of food insecurity was also below the national average for White, non-Hispanic households (10.0 percent); households headed by non-Hispanics of other, or multiple, races (10.3 percent); and households with incomes above 185 percent of the poverty line (5.8 percent).

Rates of food insecurity were higher than the national average for the following groups:

- All households with children (16.6 percent)[14]
- Households with children under age 6 (16.9 percent)
- Households with children headed by a single woman (30.3 percent) or a single man (22.4 percent)[15] and other households with children (26.2 percent)
- Women living alone (14.7 percent) and men living alone (14.0 percent)
- Households headed by Black, non-Hispanics (21.5 percent), and Hispanics (19.1 percent)
- Low-income households with incomes below 185 percent of the poverty threshold (32.8 percent)

Across the metropolitan area classifications, the prevalence of food insecurity was highest for households located in nonmetropolitan (rural) areas (15.4 percent), intermediate for those in principal

[12]The Federal poverty line was $24,036 for a family of four (two adults and two children) in 2015.

[13]"Elderly" in this report refers to persons ages 65 and older.

[14]About one-third of the difference in food insecurity between households with and without children results from a difference in the measures applied to the two types of households. Responses to questions about children as well as adults are considered in assessing the food security status of households with children, but for both types of households, a total of three indications of food insecurity is required for classification as food insecure. Even with the child-referenced questions omitted from the scale, however, in 2015 14.4 percent of households with children would be classified as food insecure (that is, as having food insecurity among adults), compared with 10.9 percent for households without children. Comparisons of very low food security are not biased substantially by this measurement issue because a higher threshold is applied to households with children consistent with the larger number of questions taken into consideration (Nord and Coleman-Jensen, 2014).

[15]Some households with children headed by a single woman or a single man as classified for these analyses included other adults, who may have been parents, siblings, cohabiting partners, adult children, or other relatives of the reference person or unrelated roomers or boarders.

Table 2

Households by food security status and selected household characteristics, 2015

Category	Total[1]	Food secure		Food insecure					
				All		With low food security		With very low food security	
	1,000	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*
All households	125,164	109,315	87.3	15,849	12.7	9,540	7.7	6,309	5.0
Household composition:									
With children < 18 yrs	38,978	32,519	83.4	6,459	16.6	4,557	11.7	1,902	4.9
With children < 6 yrs	16,995	14,129	83.1	2,866	16.9	2,146	12.7	720	4.2
Married-couple families	25,232	22,670	89.8	2,562	10.2	1,923	7.7	639	2.5
Female head, no spouse	10,117	7,052	69.7	3,065	30.3	2,109	20.9	956	9.4
Male head, no spouse	3,133	2,432	77.6	701	22.4	443	14.2	258	8.2
Other household with child[2]	496	366	73.8	130	26.2	82	16.5	48	9.7
With no children < 18 yrs	86,187	76,796	89.1	9,391	10.9	4,983	5.8	4,408	5.1
More than one adult	51,357	46,976	91.5	4,381	8.5	2,504	4.8	1,877	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	35,265	32,340	91.7	2,925	8.3	1,789	5.1	1,136	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	83,931	75,563	90.0	8,368	10.0	4,759	5.7	3,609	4.3
Black, non-Hispanic	15,734	12,357	78.5	3,377	21.5	2,127	13.6	1,250	7.9
Hispanic[3]	16,803	13,592	80.9	3,211	19.1	2,132	12.7	1,079	6.4
Other, non-Hispanic	8,695	7,803	89.7	892	10.3	521	6.0	371	4.3
Household income-to-poverty ratio:									
Under 1.00	14,070	8,687	61.7	5,383	38.3	3,006	21.4	2,377	16.9
Under 1.30	18,917	11,954	63.2	6,963	36.8	3,966	21.0	2,997	15.8
Under 1.85	28,994	19,479	67.2	9,515	32.8	5,572	19.2	3,943	13.6
1.85 and over	65,319	61,552	94.2	3,767	5.8	2,376	3.7	1,391	2.1
Income unknown	30,851	28,282	91.7	2,569	8.3	1,593	5.1	976	3.2
Area of residence:[4]									
Inside metropolitan area	106,990	93,947	87.8	13,043	12.2	7,843	7.3	5,200	4.9
In principal cities[5]	36,809	31,606	85.9	5,203	14.1	3,240	8.8	1,963	5.3
Not in principal cities	53,585	48,023	89.6	5,562	10.4	3,304	6.2	2,258	4.2
Outside metropolitan area	18,175	15,369	84.6	2,806	15.4	1,697	9.3	1,109	6.1
Census geographic region:									
Northeast	22,300	19,640	88.1	2,660	11.9	1,616	7.2	1,044	4.7
Midwest	27,199	23,727	87.2	3,472	12.8	2,069	7.6	1,403	5.2
South	47,389	41,101	86.7	6,288	13.3	3,750	7.9	2,538	5.4
West	28,277	24,848	87.9	3,429	12.1	2,105	7.4	1,324	4.7

[1]Totals exclude households for which food security status is unknown because household respondents did not give a valid response to any of the questions in the food security scale. In 2015, these exclusions represented 381,000 households (0.3 percent of all households).
[2]Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.
[3]Hispanics may be of any race.
[4]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 but are not precisely comparable with those of earlier years.
[5]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, 2015 Current Population Survey Food Security Supplement.

cities of metropolitan areas (14.1 percent), and lowest in suburbs or exurbs and other metropolitan areas outside principal cities (10.4 percent).[16] Regionally, the prevalence of food insecurity was higher in the South (13.3 percent) than in the Northeast (11.9 percent) or the West (12.1 percent). The prevalence of food insecurity in the Midwest (12.8 percent) was not statistically different from the other three regions.

The prevalence of very low food security in various types of households followed a pattern similar to that observed for food insecurity. Percentages were lower than the national average of 5.0 percent for households with young children (4.2 percent); married couples with children (2.5 percent); multiple-adult households with no children (3.7 percent); households with elderly persons (3.2 percent); elderly living alone (4.2 percent); White, non-Hispanic households (4.3 percent); households with incomes above 185 percent of the poverty line (2.1 percent); and households residing in suburbs and exurbs outside principal cities within metropolitan areas (4.2 percent).

Very low food security was more prevalent than the national average (5.0 percent) for the following groups:

- Households with children headed by a single woman (9.4 percent) or a single man (8.2 percent) and other households with children (9.7 percent)
- Women living alone (7.2 percent) and men living alone (7.3 percent)
- Black, non-Hispanic households (7.9 percent) and Hispanic households (6.4 percent)
- Households with incomes below 185 percent of the poverty line (13.6 percent)
- Households located in nonmetropolitan areas (6.1 percent)

In 7.8 percent of households with children, one or more child was food insecure (table 3).[17] Among household categories, the percentage of households with food-insecure children was lower in married-couple households (4.5 percent); White, non-Hispanic households (5.9 percent); other, non-Hispanic households (6.0 percent); households with incomes above 185 percent of the poverty line (3.3 percent); and metropolitan households located in suburbs and exurbs outside of principal cities (6.6 percent). The percentage of households with food-insecure children was higher for female-headed households (14.9 percent); male-headed households (10.0 percent); Black, non-Hispanic households (10.7 percent); Hispanic households (11.5 percent); low-income households with incomes below 185 percent of the poverty line (17.5 percent); and households in nonmetropolitan areas (9.3 percent).

Compared with the prevalence for all households with children (0.7 percent), very low food security among children was less prevalent in households with young children (0.4 percent); in married-couple families (0.4 percent); and in White, non-Hispanic households (0.5 percent). Very low food security among children was more prevalent in households headed by a single woman (1.4 percent);

[16]Revised metropolitan statistical areas (MSAs) and principal cities within them were delineated by the Office of Management and Budget in 2013, based on revised standards developed by the U.S. Census Bureau in collaboration with other Federal agencies. The revised delineations were implemented beginning with the 2014 Current Population Survey Food Security Supplement. Food security prevalence statistics by area of residence for 2014 and 2015 are comparable, but are not precisely comparable, with corresponding statistics from earlier years. Principal cities include the incorporated areas of the largest city in each MSA and other cities in the MSA that meet specified criteria based on population size and commuting patterns.

[17]Households are classified as having food insecurity among children if they report two or more food-insecure conditions among children in response to questions 11-18 in box on page 3 (Coleman-Jensen et al., 2013; Nord, 2009a).

Table 3

Prevalence of food security and food insecurity in households with children by selected household characteristics, 2015

Category	Total[1]	Food-secure households		Food-insecure households[2]		Households with food-insecure children[3]		Households with very low food security among children	
	1,000	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*	*1,000*	*Percent*
All households with children	38,978	32,519	83.4	6,459	16.6	3,022	7.8	274	0.7
Household composition:									
With children < 6 yrs	16,995	14,128	83.1	2,867	16.9	1,180	6.9	74	.4
Married-couple families	25,232	22,670	89.8	2,562	10.2	1,148	4.5	92	.4
Female head, no spouse	10,117	7,051	69.7	3,066	30.3	1,504	14.9	144	1.4
Male head, no spouse	3,133	2,432	77.6	701	22.4	314	10.0	NA	NA
Other household with child[4]	496	366	73.8	130	26.2	57	11.5	NA	NA
Race/ethnicity of households:									
White, non-Hispanic	22,237	19,315	86.9	2,922	13.1	1,316	5.9	101	.5
Black, non-Hispanic	5,223	3,932	75.3	1,291	24.7	559	10.7	61	1.2
Hispanic[5]	8,299	6,482	78.1	1,817	21.9	954	11.5	99	1.2
Other, non-Hispanic	3,218	2,790	86.7	428	13.3	194	6.0	NA	NA
Household income-to-poverty ratio:									
Under 1.00	5,889	3,364	57.1	2,525	42.9	1,229	20.9	126	2.1
Under 1.30	7,827	4,608	58.9	3,219	41.1	1,533	19.6	148	1.9
Under 1.85	11,510	7,277	63.2	4,233	36.8	2,020	17.5	185	1.6
1.85 and over	19,232	17,974	93.5	1,258	6.5	630	3.3	NA	NA
Income unknown	8,235	7,267	88.2	968	11.8	373	4.5	56	.7
Area of residence:[6]									
Inside metropolitan area	33,440	28,119	84.1	5,321	15.9	2,507	7.5	240	.7
In principal cities[7]	10,875	8,845	81.3	2,030	18.7	935	8.6	97	.9
Not in principal cities	17,662	15,276	86.5	2,386	13.5	1,166	6.6	119	.7
Outside metropolitan area	5,538	4,401	79.5	1,137	20.5	516	9.3	34	.6
Census geographic region:									
Northeast	6,409	5,405	84.3	1,004	15.7	495	7.7	44	.7
Midwest	8,158	6,812	83.5	1,346	16.5	614	7.5	57	.7
South	14,907	12,406	83.2	2,501	16.8	1,153	7.7	84	.6
West	9,503	7,896	83.1	1,607	16.9	760	8.0	89	.9

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

[1]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 2015, these exclusions represented 110,000 households with children (0.3 percent of all households with children).

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

[3]In some food-insecure households with children, only adults were food insecure. Households with food-insecure children are those with low or very low food security among children.

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

[5]Hispanics may be of any race.

[6]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 but are not precisely comparable with those of earlier years.

[7]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 households with children 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.

households headed by a Hispanic adult (1.2 percent); and households with incomes below 185 percent of the poverty line (1.6 percent).

Prevalence rates of food insecurity declined from 2014 to 2015 in many categories analyzed (fig. 4). There were no statistically significant increases in food insecurity. The prevalence of food insecurity declined significantly among all households, all households with children, households with children under age 6, married-couple families with children, single-mother families with children, households with no children, multiple-adult households, White non-Hispanic-headed households, Black non-Hispanic-headed households, Hispanic-headed households, and households with incomes above 185 percent of the Federal poverty line. The prevalence of food insecurity declined significantly in each residence area and in each region except the Midwest.

The prevalence of very low food security declined significantly from 2014 to 2015 in many categories analyzed (fig. 5). There were no statistically significant increases in very low food security. The prevalence of very low food security declined significantly among all households, all households with children, households with children under age 6, married-couple families with children, single-mother families with children, multiple-adult households with no children, Black non-Hispanic headed households, and households with incomes under 185 percent of the Federal poverty line. The prevalence of food insecurity declined significantly in suburban and exurban areas, in nonmetropolitan residence areas, and in the South.

Prevalence of Food Insecurity by State

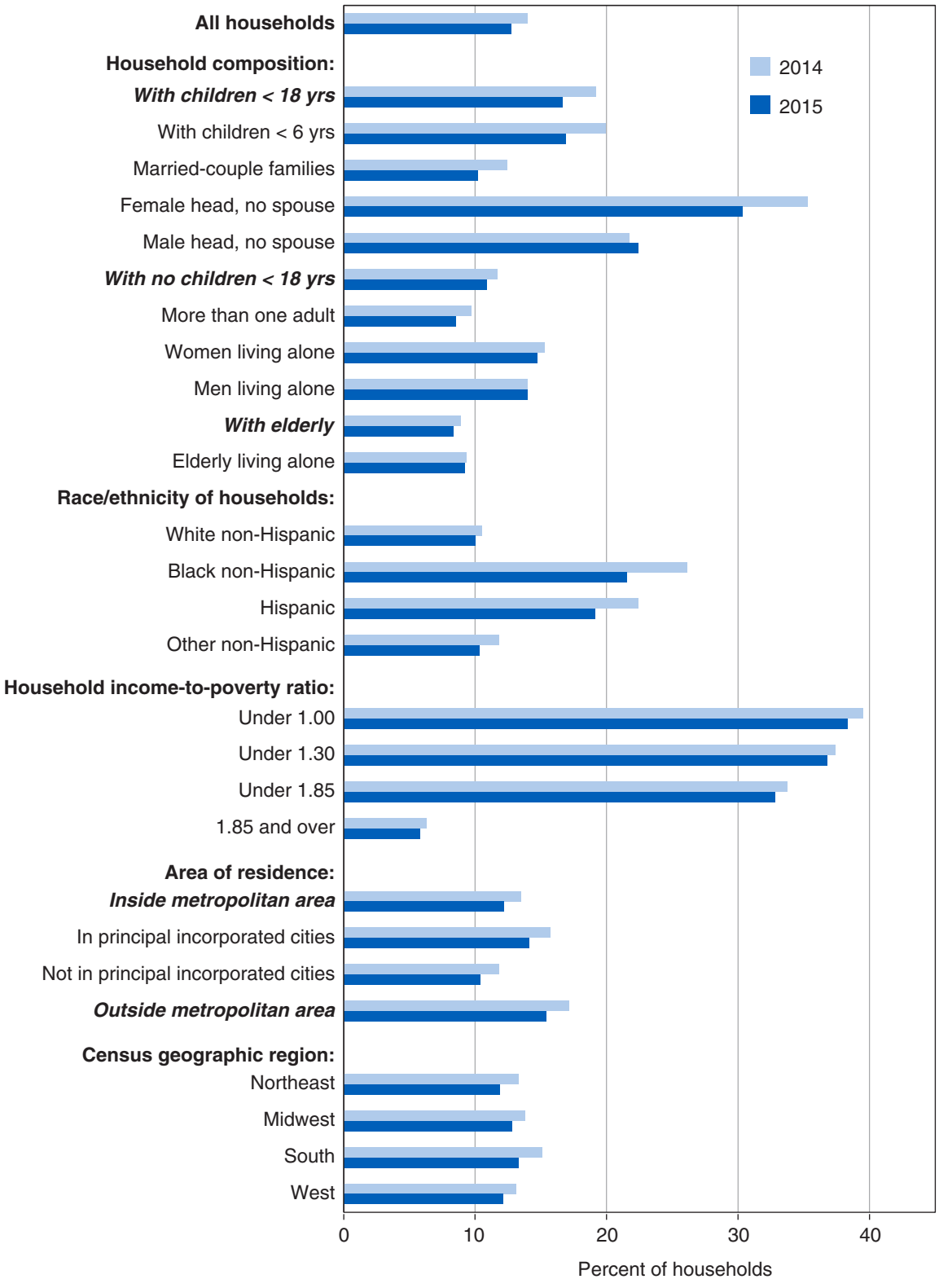
The prevalence of food insecurity varied considerably from State to State. Prevalence rates for 3 years, 2013-15, were averaged to provide more reliable statistics at the State level (table 4). Estimated prevalence rates of food insecurity during this 3-year period ranged from 8.5 percent in North Dakota to 20.8 percent in Mississippi; estimated prevalence rates of very low food security ranged from 2.9 percent in North Dakota to 7.9 percent in Mississippi.

The margins of error for the State prevalence rates should be taken into consideration when interpreting these statistics and especially when comparing prevalence rates across States. The margin of error reflects sampling variation—the uncertainty associated with estimates that are based on information from a limited number of households in each State. The margins of error presented in table 4 indicate the range (above or below the estimated prevalence rate) that is 90 percent likely to include the true prevalence rate. For example, considering the margins of error, it is not certain that the prevalence of very low food security was higher in Mississippi than in the States with the next 11 highest prevalence rates.

Taking into account margins of error of the State and U.S. estimates, the prevalence of food insecurity was higher (i.e., statistically significantly higher) than the national average in 12 States (AL, AR, KY, LA, ME, MS, NC, OH, OK, OR, TN, and TX) and lower than the national average in 20 States (CA, CO, DE, FL, HI, IA, IL, MA, MD, MN, ND, NH, NJ, PA, RI, SD, UT, VA, VT, and WI).[18] In the remaining 18 States and the District of Columbia, differences from the national average were not statistically significant. The prevalence of very low food security was higher than the national average in 11 States (AL, AR, KY, LA, ME, MI, MO, MS, OH, OK, and TX), lower than the national average in 12 States (AK, CA, DE, HI, IA, IL, MA, MD, MN, ND, NH, and VA), and not significantly different from the national average in 27 States and the District of Columbia.

[18]Standard error of difference assumes that there is no correlation between national and individual State estimates.

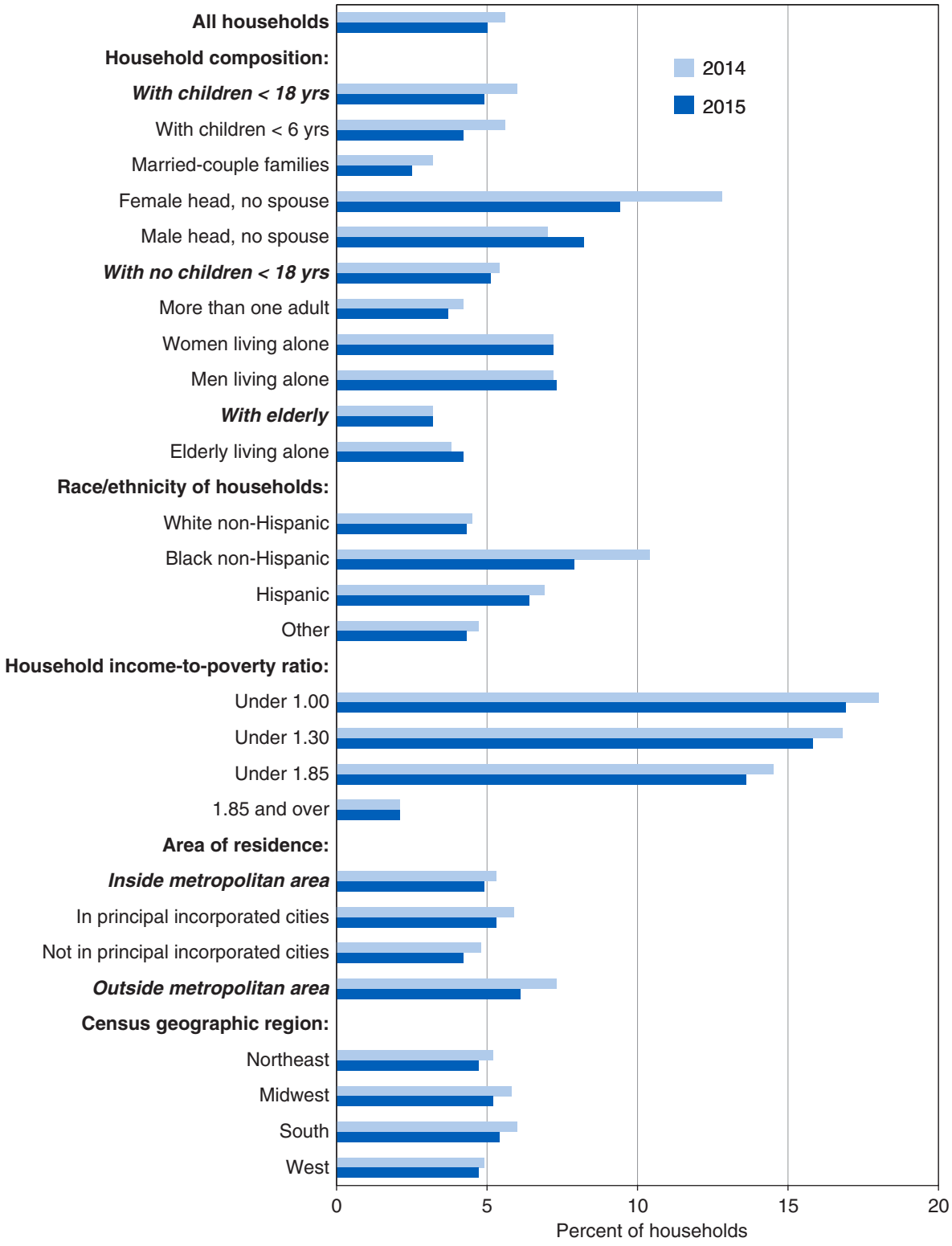
Figure 4
Prevalence of food insecurity, 2014 and 2015



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2014 and 2015 Current Population Survey Food Security Supplement..

Figure 5

Prevalence of very low food security, 2014 and 2015



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2014 and 2015 Current Population Survey Food Security Supplement.

State-level prevalence rates of food insecurity and very low food security for the period 2013-15 are compared with 3-year average rates for 2010-12 and 2003-05 in table 5. The prevalence rates for 2013-15 are repeated from table 4. The prevalence rates for the immediate 3-year period, 2010-12, were reported previously in *Household Food Security in the United States in 2012* (Coleman-Jensen et al., 2013). The 2003-05 prevalence rates were reported previously in *Household Food Security in the United States, 2005* (Nord et al., 2006) and are presented as a baseline to assess changes in State-level food security conditions over the past decade.[19]

The prevalence of food insecurity increased by a statistically significant percentage from 2010-12 to 2013-15 in 1 State (OR), and food insecurity declined by a statistically significant percentage in 11 States (CA, FL, GA, HI, IL, MD, NV, RI, SC, TX, and UT). During the same period, the prevalence of very low food security increased by a statistically significant percentage in two States (LA and VA) and declined by a statistically significant percentage in five States (CA, DE, HI, MD, and WA). Changes not marked as statistically significant (*) in table 5 were within ranges that could have resulted from sampling variation (that is, a non-zero difference between estimates is consistent with no change in food security in the State's population even though the set of the State's households that happened to be chosen for the sample happen to result in a non-zero difference between sample estimates).

[19]Prevalence rates for 1996-98 reported in *Prevalence of Food Insecurity and Hunger, by State, 1996-1998* (Nord et al., 1999) are not directly comparable with the rates reported here because of differences in screening procedures in the CPS Food Security Supplements from 1995 to 1998. Statistics for 1996-1998 adjusted to be comparable with those for recent years are presented in *Statistical Supplement to Food Security in the United States in 2010*, table S-4 (Coleman-Jensen et al., 2011). Standard errors of State-level estimates for 2003-05 were calculated using jack-knife replication methods with "month-in-sample" groups considered as separate, independent samples (see Nord et al., 1999).

Table 4

Prevalence of household food insecurity and very low food security by State, average, 2013-15

States	Number of households		Food insecurity (low or very low food security)		Very low food security	
	Average 2013-15[1]	Interviewed	Prevalence	Margin of error[2]	Prevalence	Margin of error[2]
	Number	*Number*	*Percent*	*Percentage points*	*Percent*	*Percentage points*
U.S.	123,929,000	125,002	13.7	0.19	5.4	0.13
AK	268,000	1,433	13.3	1.42	4.4 *	.81
AL	1,969,000	2,077	17.6 *	1.85	7.3 *	1.29
AR	1,166,000	2,015	19.2 *	1.66	7.4 *	1.11
AZ	2,631,000	1,709	14.9	1.74	6.0	.99
CA	13,682,000	9,605	12.6 *	0.63	4.5 *	.37
CO	2,218,000	2,008	12.1 *	1.53	5.1	.99
CT	1,402,000	1,835	13.1	1.60	6.3	1.24
DC	321,000	2,379	13.2	1.20	4.8	.86
DE	382,000	1,695	11.9 *	1.52	3.2 *	.85
FL	8,092,000	5,039	12.7 *	0.85	5.4	.58
GA	3,987,000	2,831	14.9	1.36	5.6	.85
HI	465,000	1,681	9.7 *	1.46	3.0 *	.73
IA	1,265,000	1,812	10.6 *	1.33	4.5 *	.87
ID	627,000	1,625	13.8	1.58	5.1	1.01
IL	4,994,000	3,721	11.1 *	1.00	4.3 *	.62
IN	2,630,000	2,065	14.8	1.65	6.1	1.05
KS	1,172,000	1,800	14.6	1.52	5.5	.93
KY	1,820,000	1,832	17.6 *	2.36	7.3 *	1.46
LA	1,802,000	2,296	18.4 *	1.80	7.7 *	1.27
MA	2,747,000	2,160	9.7 *	1.22	4.5 *	.90
MD	2,304,000	2,242	10.7 *	1.22	3.8 *	.75
ME	565,000	1,719	15.8 *	2.07	7.4 *	1.89
MI	3,976,000	2,873	14.9	1.54	6.4 *	1.00
MN	2,186,000	2,334	9.9 *	1.21	3.8 *	.66
MO	2,425,000	1,955	15.2	1.63	6.7 *	1.05
MS	1,138,000	1,982	20.8 *	1.89	7.9 *	1.30
MT	439,000	2,166	12.2	1.46	5.6	1.01
NC	3,942,000	2,779	15.9 *	1.34	6.2	.93
ND	318,000	1,815	8.5 *	1.46	2.9 *	.84
NE	756,000	1,654	14.8	1.94	5.6	1.32
NH	529,000	2,190	10.1 *	1.24	4.3 *	.83
NJ	3,324,000	2,366	11.1 *	1.36	4.7	.83
NM	809,000	1,749	14.4	1.66	5.7	1.01
NV	1,137,000	1,826	14.2	1.35	5.6	.94
NY	7,734,000	4,842	14.1	0.88	4.9	.56
OH	4,743,000	3,528	16.1 *	1.19	6.6 *	.82
OK	1,514,000	1,772	15.5 *	1.63	6.4 *	.99
OR	1,568,000	1,855	16.1 *	1.52	6.6	1.24
PA	5,125,000	3,584	12.4 *	1.24	4.8	.63
RI	430,000	1,516	11.8 *	1.62	5.0	1.08
SC	1,968,000	1,953	13.2	1.26	4.6	.81
SD	351,000	1,675	11.5 *	2.11	4.5	1.12
TN	2,657,000	2,156	15.1 *	1.35	6.0	.76
TX	9,809,000	6,271	15.4 *	0.88	6.0 *	.54
UT	945,000	1,432	11.9 *	1.41	4.5	.94
VA	3,205,000	2,497	9.8 *	1.19	4.3 *	.73
VT	261,000	1,962	11.4 *	1.32	5.1	.98
WA	2,764,000	2,228	12.9	1.45	4.8	.78
WI	2,370,000	2,420	11.3 *	1.33	4.7	1.03
WV	763,000	2,225	15.0	1.50	6.2	.91
WY	238,000	1,818	13.2	1.65	5.3	.88

*Difference from U.S. average was statistically significant with 90-percent confidence (t > 1.645). Standard error of differences assumes that there is no correlation between national and individual State estimates.

[1]Totals exclude households for which food security status is unknown because household respondents did not give a valid response to any of the questions in the food security scale. These exclusions represented about 0.4 percent of all households in 2013, 0.2 percent in 2014, and 0.3 percent in 2015.

[2]Margin of error with 90-percent confidence (1.645 times the standard error of the estimated prevalence rate). Standard errors were estimated using balanced repeated replication (BRR) methods based on replicate weights for the CPS Food Security Supplement.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2013, 2014, and 2015 Current Population Survey Food Security Supplements.

Table 5

Change in prevalence of household food insecurity and very low food security by State, 2013-15 (average), 2010-12 (average), and 2003-05 (average)[1]

States	Food insecurity (low or very low food security)					Very low food security				
	Average 2013-15	Average 2010-12	Average 2003-05	Change 2010-12 to 2013-15	Change 2003-05 to 2013-15	Average 2013-15	Average 2010-12	Average 2003-05	Change 2010-12 to 2013-15	Change 2003-05 to 2013-15
	Percent			*Percentage points*		*Percent*			*Percentage points*	
U.S.	13.7	14.7	11.4	-1.0*	2.3*	5.4	5.6	3.8	-0.2*	1.6*
AK	13.3	12.1	12.2	1.2	1.1	4.4	4.4	4.9	.0	-.5
AL	17.6	17.9	12.3	-.3	5.3*	7.3	6.8	3.4	.5	3.9*
AR	19.2	19.7	14.7	-.5	4.5*	7.4	8.1	5.6	-.7	1.8*
AZ	14.9	14.9	12.2	.0	2.7*	6.0	6.4	3.8	-.4	2.2*
CA	12.6	15.6	11.7	-3.0*	.9*	4.5	5.7	3.6	-1.2*	.9*
CO	12.1	14.1	12.0	-2.0	.1	5.1	5.8	3.9	-.7	1.2*
CT	13.1	13.4	8.2	-.3	4.9*	6.3	4.9	2.6	1.4	3.7*
DC	13.2	12.0	11.4	1.2	1.8*	4.8	4.5	3.8	.3	1.0
DE	11.9	11.6	6.6	.3	5.3*	3.2	4.9	1.9	-1.7*	1.3*
FL	12.7	14.8	9.4	-2.1*	3.3*	5.4	5.7	3.5	-.3	1.9*
GA	14.9	16.9	12.4	-2.0*	2.5*	5.6	6.5	5.1	-.9	.5
HI	9.7	14.0	7.8	-4.3*	1.9*	3.0	5.6	2.8	-2.6*	.2
IA	10.6	12.6	10.9	-2.0	-.3	4.5	4.8	3.5	-.3	1.0
ID	13.8	14.3	14.1	-.5	-.3	5.1	5.3	3.7	-.2	1.4*
IL	11.1	13.0	9.1	-1.9*	2.0*	4.3	4.5	3.2	-.2	1.1*
IN	14.8	13.5	11.1	1.3	3.7*	6.1	6.3	4.1	-.2	2.0*
KS	14.6	14.4	12.3	.2	2.3*	5.5	5.5	4.6	.0	.9
KY	17.6	15.6	12.8	2.0	4.8*	7.3	6.2	4.2	1.1	3.1*
LA	18.4	15.7	12.8	2.7	5.6*	7.7	4.8	3.6	2.9*	4.1*
MA	9.7	11.4	7.8	-1.7	1.9*	4.5	4.2	3.0	.3	1.5*
MD	10.7	13.0	9.4	-2.3*	1.3	3.8	5.1	3.6	-1.3*	.2
ME	15.8	14.9	12.3	.9	3.5*	7.4	7.1	4.6	.3	2.8*
MI	14.9	13.4	11.5	1.5	3.4*	6.4	5.3	4.1	1.1	2.3*
MN	9.9	10.6	7.7	-.7	2.2*	3.8	4.8	3.0	-1.0	.8
MO	15.2	16.7	11.7	-1.5	3.5*	6.7	7.6	4.0	-.9	2.7*
MS	20.8	20.9	16.5	-.1	4.3*	7.9	6.9	4.4	1.0	3.5*
MT	12.2	14.1	11.2	-1.9	1.0	5.6	5.6	4.6	.0	1.0
NC	15.9	17.0	13.2	-1.1	2.7*	6.2	5.5	4.5	.7	1.7*
ND	8.5	8.7	6.4	-.2	2.1*	2.9	3.4	2.2	-.5	.7
NE	14.8	13.4	10.3	1.4	4.5*	5.6	5.0	4.0	.6	1.6*
NH	10.1	9.9	6.5	.2	3.6*	4.3	4.3	2.2	.0	2.1*
NJ	11.1	12.1	8.1	-1.0	3.0*	4.7	4.6	2.6	.1	2.1*
NM	14.4	15.2	16.8	-.8	-2.4	5.7	5.9	5.7	-.2	.0
NV	14.2	16.6	8.4	-2.4*	5.8*	5.6	6.7	3.0	-1.1	2.6*
NY	14.1	13.2	10.4	.9	3.7*	4.9	5.0	3.1	-.1	1.8*
OH	16.1	16.1	12.6	.0	3.5*	6.6	7.1	3.8	-.5	2.8*
OK	15.5	15.3	14.6	.2	.9	6.4	6.6	4.8	-.2	1.6*
OR	16.1	13.6	11.9	2.5*	4.2*	6.6	5.8	3.9	.8	2.7*
PA	12.4	12.3	9.8	.1	2.6*	4.8	4.8	2.9	.0	1.9*
RI	11.8	15.4	12.4	-3.6*	-.6	5.0	5.5	4.1	-.5	.9
SC	13.2	15.4	15.5	-2.2*	-2.3*	4.6	5.2	6.3	-.6	-1.7*
SD	11.5	12.9	9.5	-1.4	2.0	4.5	4.9	3.2	-.4	1.3*
TN	15.1	16.2	13.0	-1.1	2.1	6.0	6.9	4.2	-.9	1.8*
TX	15.4	18.4	16.0	-3.0*	-.6	6.0	6.2	5.1	-.2	.9*
UT	11.9	14.8	14.5	-2.9*	-2.6*	4.5	4.8	5.1	-.3	-.6
VA	9.8	9.2	8.4	.6	1.4	4.3	3.2	2.7	1.1*	1.6*
VT	11.4	12.7	9.5	-1.3	1.9*	5.1	5.6	3.9	-.5	1.2
WA	12.9	14.6	11.2	-1.7	1.7	4.8	6.1	3.9	-1.3*	.9
WI	11.3	11.2	9.5	.1	1.8*	4.7	4.7	2.7	.0	2.0*
WV	15.0	14.2	8.9	.8	6.1*	6.2	4.9	3.0	1.3	3.2*
WY	13.2	13.8	11.1	-.6	2.1*	5.3	5.1	4.1	.2	1.2*

*Change was statistically significant with 90-percent confidence (t > 1.645).

[1]Percentages exclude households for which food security status is unknown because household respondents did not give a valid response to 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, Current Population Survey Food Security Supplements.

Household Spending on Food

This section provides information on how much households spent on food, as reported in the December 2015 food security survey. Food insecurity is a condition that arises from lack of money and other resources to acquire food. In most households, the majority of food consumed by household members is purchased—either from supermarkets or grocery stores—to be prepared and eaten at home, or from cafeterias, restaurants, or vending machines to be eaten outside the home. The amount of money that a household spends on food, therefore, provides insight into how adequately the household is meeting its food needs.[20] When a household reduces food spending below some minimum level because of constrained resources, various aspects of food insecurity such as disrupted eating patterns and reduced food intake may result.

Methods

The household food expenditure statistics in this report are based on usual weekly spending for food, as reported by respondents after they were given a chance to reflect on the household's actual food spending during the previous week. Respondents were first asked to report the amounts of money their households had spent on food in the week prior to the interview, including any purchases made with SNAP benefits (formerly called food stamps) at:

- supermarkets and grocery stores;
- stores other than supermarkets and grocery stores, such as meat markets, produce stands, bakeries, warehouse clubs, and convenience stores;
- restaurants, fast food places, cafeterias, and vending machines;
- "...any other kind of place."[21]

Total spending for food, based on responses to this series of questions, was verified with the respondent, and the respondent was then asked how much the household usually spent on food during a week.[22] Analyses by ERS researchers have found that usual food expenditures estimated from data collected by this method were consistent with estimates from the Consumer Expenditure Survey (CES)—the principal source of data on U.S. household expenditures for goods and services (Oliveira and Rose, 1996; Nord, 2009b).

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[20]Food spending is only an indirect indicator of food consumption. It understates food consumption in households that receive food from in-kind programs, such as the National School Lunch and School Breakfast Programs, WIC, meal programs for children in child care and for the elderly, and private charitable organizations. (Purchases with SNAP benefits, however, are counted as food spending in the CPS food security survey.) Food spending also understates food consumption in households that acquire a substantial part of their food supply through gardening, hunting, or fishing, as well as in households that obtain groceries from friends or relatives or eat more meals at friends' or relatives' homes than they provide to friends or relatives. (Food spending overstates food consumption in households with the opposite characteristics.) Food spending also understates food consumption in geographical areas with relatively low food prices and overstates consumption in areas with high food prices.

[21]For spending in the first two categories of stores, respondents were also asked how much of the amount was for "nonfood items such as pet food, paper products, alcohol, detergents, or cleaning supplies." These amounts are not included in calculating spending for food.

[22]Beginning with the 2015 Current Population Survey Food Security Supplement, food spending amounts are categorized in public-use data. Categorizing the dollar amounts reduces the risk of disclosure and is now standard for data collected by the U.S. Census Bureau. ERS analysis suggests that this change has little effect on the estimates of median food spending reported here. The food spending estimates reported here use the confidential data file that includes continuous food spending data.

Food spending was adjusted for household size and composition in two ways. The first adjustment was calculated by dividing each household's usual weekly food spending by the number of persons in the household, yielding the "usual weekly food spending per person" for that household. The second adjustment accounts more precisely for the different food needs of households by comparing each household's usual food spending to the estimated cost of the Thrifty Food Plan for that household in December 2015.[23] The Thrifty Food Plan—developed by USDA—serves as a national standard for a nutritious, minimal-cost diet. It represents a set of "market baskets" of food that people in specific age and gender categories could consume at home to maintain a healthful diet that meets current dietary standards, taking into account the food consumption patterns of U.S. households (U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 2007).[24] Each household's reported usual weekly food spending was divided by the household-specific cost of the Thrifty Food Plan based on the age and gender of each household member and the number of persons in the household (U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 2016).[25]

The medians of each of the two food spending measures (spending per person per week and spending relative to the cost of the Thrifty Food Plan) were estimated at the national level and for households in various categories to represent the usual weekly food spending of the typical household in each category. Medians are reported rather than averages (means) because medians are not unduly affected by the few unexpectedly high values of usual food spending that are believed to be reporting errors or data entry errors. Thus, the median better reflects what a typical household spent.

About 8.8 percent of households interviewed in the CPS food security survey did not respond to the food spending questions or reported zero usual food spending and were excluded from the analysis. As a result, the total number of households represented in tables 6 and 7 is somewhat smaller than that in tables 1 and 2, and food spending estimates may not be fully representative of all households in the United States.[26]

Food Expenditures, by Selected Household Characteristics

In 2015, the typical U.S. household spent $50.00 per person each week for food (table 6). Median household food spending relative to the cost of the Thrifty Food Plan—which adjusts for food price inflation and adjusts more precisely for the food needs of persons in different age-gender categories—was 1.18, up from 1.17 in 2014. That is, in 2015, the typical household spent 18 percent more on food than the cost of the Thrifty Food Plan for that household.

[23]The cost of the Thrifty Food Plan is revised each month to account for inflation in food prices. Thrifty Food Plan costs are estimated separately for Alaska and Hawaii using adjustment factors calculated from USDA's Thrifty Food Plan costs for those States for the second half of 2015.

[24]The Thrifty Food Plan, in addition to its use as a research tool, is used as a basis for setting the maximum SNAP benefit amounts.

[25]The cost of a Thrifty Food Plan for a household is calculated under the assumption that all household members purchase and prepare food together.

[26]Households that were unable or unwilling to report food spending were less likely to be food insecure than those that did report food spending (9.3 percent compared with 13.0 percent). Food spending may, therefore, be slightly underestimated from these data.

Table 6

Weekly household food spending per person and relative to the cost of the Thrifty Food Plan (TFP), 2015

Category	Number of households[1]	Median weekly food spending	
		Per person	Relative to cost of TFP
	1,000	*Dollars*	*Ratio*
All households	114,401	50.00	1.18
Household composition:			
With children < 18 yrs	36,477	37.60	1.07
At least one child < 6 yrs	15,927	35.71	1.08
Married-couple families	23,702	40.00	1.11
Female head, no spouse	9,395	36.00	.98
Male head, no spouse	2,929	36.25	.96
Other household with child[2]	452	35.00	.95
With no children < 18 yrs	77,924	55.00	1.24
More than one adult	46,980	50.00	1.18
Women living alone	16,803	60.00	1.33
Men living alone	14,140	75.00	1.48
With elderly	31,265	50.00	1.18
Elderly living alone	11,272	55.00	1.21
Race/ethnicity of households:			
White, non-Hispanic	76,986	50.00	1.25
Black, non-Hispanic	14,117	41.00	1.00
Hispanic[3]	15,431	41.67	1.07
Other, non-Hispanic	7,867	50.00	1.13
Household income-to-poverty ratio:			
Under 1.00	13,024	37.50	.92
Under 1.30	17,593	37.50	.92
Under 1.85	27,068	38.33	.95
1.85 and over	62,078	55.00	1.33
Income unknown	25,254	50.00	1.18
Area of residence:[4]			
Inside metropolitan area	97,702	50.00	1.19
In principal cities[5]	33,417	50.00	1.21
Not in principal cities	49,007	50.00	1.22
Outside metropolitan area	16,699	45.00	1.08
Census geographic region:			
Northeast	20,292	50.00	1.24
Midwest	24,855	50.00	1.13
South	43,204	50.00	1.18
West	26,051	50.00	1.23

[1]Totals exclude households that did not answer the questions about spending on food or reported zero usual food spending. These exclusions represented 8.8 percent of all households.
[2]Households with children in complex living arrangements (e.g., children of other relatives or unrelated roommate or boarder).
[3]Hispanics may be of any race.
[4]Metropolitan area residence is based on 2013 Office of Management and Budget delineation.
[5]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, 2015 Current Population Survey Food Security Supplement.

Households with children under age 18 generally spent less for food, relative to the cost of the Thrifty Food Plan, than those without children. The typical household with children spent 7 percent more than the cost of the Thrifty Food Plan on food, while the typical household with no children spent 24 percent more than the cost of the Thrifty Food Plan. Median food expenditures relative to the cost of the Thrifty Food Plan were lower for households with children headed by single women (0.98) or single men (0.96) than for married couples with children (1.11). Food spending relative to the cost of the TFP below 1.0 indicates low food expenditures that may be inadequate since the TFP was designed to be a minimal-cost nutritious diet. Median food expenditure relative to the cost of the Thrifty Food Plan was highest for men living alone (1.48).

Median food expenditures relative to the cost of the Thrifty Food Plan were lower for Black, non-Hispanic (1.00) and Hispanic households (1.07) than for White, non-Hispanic households (1.25). This pattern is consistent with the lower average incomes and higher prevalence rates of food insecurity of these racial and ethnic minorities.

As expected, households with higher incomes spent more money on food than lower income households.[27] The typical household with income below the poverty line spent about 8 percent less than the cost of the Thrifty Food Plan, while the typical household with income above 185 percent of the poverty line spent 33 percent more than the cost of the Thrifty Food Plan.

Median food spending relative to the cost of the Thrifty Food Plan was lower for households in nonmetropolitan areas (1.08) than for those inside metropolitan statistical areas (1.19). Regionally, median spending on food relative to the cost of the Thrifty Food Plan was somewhat lower in the Midwest (1.13) than in other areas.

Food Expenditures and Household Food Security

Food-secure households typically spent more on food than food-insecure households. Median food spending relative to the cost of the Thrifty Food Plan was 1.21 among food-secure households, compared with 0.95 among food-insecure households (table 7). Taking into account estimated food need, the median food-secure household spent approximately 27 percent more for food than the median food-insecure household in 2015 (estimated as 1.21/0.95=1.27). Median food spending relative to the cost of the Thrifty Food Plan was higher for food-secure households in 2015 than in 2014 (1.21 versus 1.18).

[27]However, food spending does not rise proportionately with income increases, so high-income households actually spend a smaller proportion of their income on food than do low-income households.

Table 7

Weekly household food spending per person and relative to the cost of the Thrifty Food Plan (TFP) by food security status, 2015

Category	Number of households[1]	Median weekly food spending	
		Per person	Relative to cost of TFP
	1,000	*Dollars*	*Ratio*
All households	114,401	50.00	1.18
Food security status:			
Food-secure households	99,365	50.00	1.21
Food-insecure households	14,832	38.33	.95
Households with low food security	8,921	37.50	.95
Households with very low food security	5,911	40.00	.96

[1]Total for all households excludes households that did not answer the questions about spending on food or reported zero usual spending for food. These represented 8.8 percent of all households. Totals in the bottom section also exclude households that did not answer any of the questions in the food security scale.

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

Federal Food and Nutrition Assistance Programs and Food Security

Households with limited resources employ a variety of methods to help meet their food needs. Some participate in one or more of the Federal food and nutrition assistance programs or obtain food from emergency food providers in their communities to supplement the food they purchase. Households that turn to Federal and community food and nutrition assistance programs typically do so because they are having difficulty in meeting their food needs. The use of such programs by low-income households provides insight into the extent of these households' difficulties in obtaining enough food. The relationship between food security status and use of food and nutrition assistance programs also provides insight into the ways low-income households cope with difficulties in acquiring adequate food.

This section presents information about the food security status of households that participated in the three largest Federal food and nutrition assistance programs, SNAP, The National School Lunch Program, and WIC (see box, "Federal Food and Nutrition Assistance Programs," on page 29). It also provides information about the extent to which food-insecure households participated in these programs. Total participation in the Federal food and nutrition assistance programs, participation rates of eligible households in those programs, and characteristics of participants in those programs are not described in this report. Extensive information on those topics is available from USDA's Food and Nutrition Service (FNS).[28]

Statistical Supplement tables S-11 to S-16 provide information on food spending by participants and low-income nonparticipants in selected Federal and community food and nutrition assistance programs and about the extent to which households obtained assistance from community food pantries and emergency kitchens (http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx).

Methods

The December 2015 CPS food security survey included questions about the use of Federal food and nutrition assistance programs. All households with reported annual incomes below 185 percent of the Federal poverty threshold were asked these questions. In order to minimize the burden on respondents, households with annual incomes above that range were not asked the questions unless they indicated some level of difficulty in meeting their food needs on the first of the preliminary screener questions listed in footnote 5. The questions analyzed in this section are:

- "During the past 12 months…did anyone in this household get SNAP or food stamp benefits?"[29] Households that responded affirmatively were then asked in which months they received SNAP benefits and on what date they last received them. Information from these three questions was used to identify households that received SNAP benefits in the 30 days prior to the survey.

[28]Information on Federal food and nutrition assistance programs, including participation rates and characteristics of participants, is available from the FNS website at http://www.fns.usda.gov and http://www.fns.usda.gov/ops/research-and-analysis. Additional research findings on the operation and effectiveness of these programs are available from the ERS website at http://www.ers.usda.gov/topics/food-nutrition-assistance.aspx.

[29]The Food Stamp Program was renamed the Supplemental Nutrition Assistance Program (SNAP) in October 2008. Both names were mentioned in the survey question as well as the State's name for the program in States that used a different name.

Federal Food and Nutrition Assistance Programs

The U.S. Department of Agriculture's Food and Nutrition Service (FNS) administers 15 domestic food and nutrition assistance programs. The three largest programs are (for more information, see Oliveira, 2016):

- The Supplemental Nutrition Assistance Program (SNAP), formerly the Food Stamp Program. The program provides monthly benefits to eligible low-income households to purchase food items at SNAP authorized retailers. SNAP is available to all individuals who meet financial and nonfinancial eligibility criteria.[1] In an average month of fiscal year 2015 (October 1, 2014, through September 30, 2015), SNAP provided benefits to nearly 45.8 million people in the United States (about 14 percent of individuals). The average benefit was about $127 per person per month, and total annual Federal expenditure for the program was nearly $74 billion.
- The National School Lunch Program. The program operates in over 100,000 public and nonprofit private schools and residential child-care institutions. All meals served under the program receive Federal subsidies, and free or reduced-price lunches are available to low-income students. In fiscal year 2015, the program provided lunches to an average of 30.5 million children each school day. Sixty-five percent of the lunches served in 2015 were free, and an additional 7 percent were provided at reduced prices.
- The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The program is a federally funded preventive nutrition program that provides grants to States to support distribution of supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and nonbreastfeeding postpartum women; for infants in low-income families; and for children in low-income families who are younger than 5 years old and who are found to be at nutritional risk. Most State WIC agencies provide vouchers that participants use to acquire supplemental food packages at authorized food stores. In fiscal year 2015, WIC served an average 8.0 million participants per month at an average monthly cost for food (after rebates to WIC from manufacturers) of about $44 per person.

[1]http://www.fns.usda.gov/snap/eligibility

- "During the past 30 days, did any children in the household…receive free or reduced-price lunches at school?" (Only households with children between the ages of 5 and 18 were asked this question.)
- "During the past 30 days, did any women or children in this household get food through the WIC program?" (Only households with a child under age 5 or a woman age 15-45 were asked this question.)

Prevalence rates of food security, food insecurity, and very low food security were calculated for households reporting use of each food and nutrition assistance program and for comparison groups of nonparticipating households with incomes and household compositions similar to those of food assistance recipients. Statistics for participating households excluded households with annual incomes above the ranges specified for the comparison groups.[30] The proportions of food-insecure households participating in each of the three largest Federal food and nutrition assistance programs—SNAP, the National School Lunch Program, and WIC—were calculated, as well as the proportion that participated in any of the three programs. These analyses were restricted to

[30]Some program participants reported annual incomes that were higher than 12 times the program eligibility criteria, which are based on monthly income (relative to poverty). They may have had monthly incomes below the monthly eligibility threshold during part of the year, or subfamilies within the household may have had incomes low enough to have been eligible.

households with annual incomes below 185 percent of the poverty line because most households with incomes above this range were not asked whether they participated in these programs.

Food Security of Households That Received Food and Nutrition Assistance

The relationship between food security and the use of food and nutrition assistance programs is complex. There are reasons to expect that households that report using food and nutrition assistance programs in a one-time survey can either be more food secure or less food secure than low-income households not using those programs. Since the programs provide food and other resources to reduce the severity of food insecurity, households are expected to be more food secure after receiving program benefits than before doing so. On the other hand, it is the more food-insecure households, those having greater difficulty meeting their food needs, that seek assistance from the programs.[31] An estimated 52.5 percent of households that received SNAP benefits were food insecure, as were 44.9 percent of households that received free or reduced-price school lunches, and 40.1 percent of those that received WIC benefits (table 8). The prevalence of very low food security among households participating in SNAP was double that of nonparticipating households in the same low-income range (22.6 percent versus 10.9 percent). For households that received free or reduced-price school lunches, the prevalence of very low food security was more than twice that of nonparticipating households with school-age children in the same income range (14.8 percent versus 6.1 percent).

Table 8
Percentage of households by food security status and participation in selected Federal food and nutrition assistance programs, 2015

Category	Food secure	Food insecure		
		All	With low food security	With very low food security
		Percent		
Income less than 130 percent of poverty line:				
Received SNAP[1] benefits previous 12 months	47.5	52.5	29.9	22.6
Received SNAP benefits all 12 months	48.8	51.2	29.5	21.7
Received SNAP benefits 1 to 11 months	44.6	55.4	30.9	24.5
Did not receive SNAP benefits previous 12 months	74.7	25.3	14.4	10.9
Income less than 185 percent of poverty line; school-age children in household:				
Received free or reduced-price school lunch previous 30 days	55.1	44.9	30.1	14.8
Did not receive free or reduced-price school lunch previous 30 days	77.7	22.3	16.2	6.1
Income less than 185 percent of poverty line; children under age 5 in household:				
Received WIC[2] previous 30 days	59.9	40.1	31.3	8.8
Did not receive WIC previous 30 days	68.0	32.0	24.1	7.9

[1]SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.
[2]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, 2015 Current Population Survey Food Security Supplement.

[31]This "self-selection" effect is evident in the association between food security and food program participation that is observed in the food security survey. Participating households were less food secure than similar nonparticipating households. More complex analysis using methods to account for this self-targeting is required to assess the extent to which the programs improve food security (see Gregory et al., 2015 for a review of this literature and these methods; also see Mabli et al., 2013; Nord, 2013; Nord, 2012; Nord and Prell, 2011; Ratcliffe and McKernan, 2011; Nord and Golla, 2009; Yen et al., 2008; Wilde and Nord, 2005; Gundersen and Oliveira, 2001; Gundersen and Gruber, 2001; and Nelson et al., 1998).

A possible complicating factor in interpreting table 8 is that food insecurity was measured over a 12-month period. An episode of food insecurity may have occurred at a different time during the year than the use of a specific food and nutrition assistance program. A similar tabulation using a 30-day measure of food insecurity largely overcomes this potential problem because 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. That tabulation shows patterns of food insecurity and the use of food and nutrition assistance programs that are similar to those in table 8, although 30-day food insecurity prevalence rates were somewhat lower than the corresponding 12-month rates (see Statistical Supplement table S-15, http://www.ers.usda.gov/publications/ap-administrative-publication/ap072.aspx).

Participation in Federal Food and Nutrition Assistance Programs by Food-Insecure Households

About 59 percent of food-insecure households reported receiving assistance from one or more of the three largest Federal food and nutrition assistance programs during the month prior to the December 2015 food security survey (table 9). SNAP provided assistance to 44.6 percent of food-insecure households, children in 30.2 percent of food-insecure households received free or reduced-price school lunches, and women or children in 9.7 percent of food-insecure households received WIC food vouchers.[32] About 55 percent of households classified as having very low food security reported participating in one or more of the three largest Federal food and nutrition assistance programs, and the largest share of these (44.8 percent) participated in SNAP.[33]

[32]These statistics may be biased downward. It is known from comparisons between household survey data and administrative records that food program participation is underreported by household survey respondents, including those in the CPS (Meyer and George, 2011; Parker, 2011; Meyer et al., 2009). This is probably true for food-insecure households as well, although the extent of underreporting by these households is not known. Statistics are based on the subsample of households with annual incomes below 185 percent of the poverty line. Not all of these households were eligible for certain programs. (For example, many households without pregnant women or children and with incomes above 130 percent of poverty would not have been eligible for any of the programs.)

[33]The statistics in table 9 were also calculated for households that were food insecure during the 30-day period prior to the survey. In principle, that analysis is preferable because food security status and use of programs are more certainly contemporaneous than when food insecurity is assessed over a 12-month period. However, the results differed only slightly from those in table 9 and are not presented in a separate table. In 2015, an estimated 62 percent of households that were food insecure during the 30-day period prior to the survey participated in SNAP, free or reduced-price school lunch, or WIC during that same period. Among households that experienced very low food security in the 30-day period prior to the survey, 58 percent participated in SNAP, free or reduced-price school lunch, or WIC during that same period.

Table 9

Participation of food-insecure households in selected Federal food and nutrition assistance programs, 2015

Program	Share of food-insecure households that participated in the program during the previous 30 days[1,2]	Share of households with very low food security that participated in the program during the previous 30 days[1,2]
	Percent	
SNAP[3]	44.6	44.8
Free or reduced-price school lunch	30.2	23.9
WIC[4]	9.7	5.5
Any of the three programs	58.7	55.4
None of the three programs	41.3	44.6

[1]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.
[2]These statistics understate the extent of food and nutrition program participation because program participation is underreported by household survey respondents; see footnote 32.
[3]SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.
[4]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, 2015 Current Population Survey Food Security Supplement.

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