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# Household Food Security in the United States in 2020

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## Household Food Security in the United States in 2020

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### Abstract

This report provides statistics on food security in U.S. households throughout 2020 based on the Current Population Survey Food Security Supplement data collected in December 2020. An estimated 89.5 percent of U.S. households were food secure throughout the entire year in 2020, with access at all times to enough food for an active, healthy life for all household members. The remaining households (10.5 percent, unchanged from 10.5 percent in 2019) were food insecure at least some time during the year, including 3.9 percent with very low food security (not significantly different from 4.1 percent in 2019). Very low food security is the more severe range of food insecurity where one or more household members experienced reduced food intake and disrupted eating patterns at times during the year because of limited money and other resources for obtaining food. Although the prevalence of food insecurity and very low food security for all households remained unchanged from 2019, some subgroups experienced increases in food insecurity and very low food security. For example, among children, food insecurity and very low food security increased significantly from 2019. Children and adults were food insecure in 7.6 percent of U.S. households with children in 2020 (up from 6.5 percent in 2019); very low food security among children was 0.8 percent (up from 0.6 percent in 2019). In 2020, the typical food-secure household spent 18 percent more on food than the typical food-insecure household of the same size and household composition. About 55 percent of food-insecure households participated in one or more of the three largest Federal nutrition assistance programs: Supplemental Nutrition Assistance Program (SNAP, formerly food stamps); Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); and the National School Lunch Program during the month prior to the 2020 survey. Because of the coronavirus (COVID-19) pandemic, USDA granted States significant program flexibilities and contingencies to serve nutrition assistance program participants. The prevalence of food insecurity in the 30-day period from mid-November to mid-December 2020 was 5.7 percent for the Nation. Food insecurity was substantially higher for households with a householder or reference person (an adult household member in whose name the housing unit is owned or rented) who was unable to work because of the pandemic (16.4 percent food insecure in the 30-day period from mid-November to mid-December 2020) and households with a reference person who was not employed and was prevented from looking for work because of the pandemic (20.4 percent food insecure in the same 30-day period).

**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, COVID-19, coronavirus pandemic.

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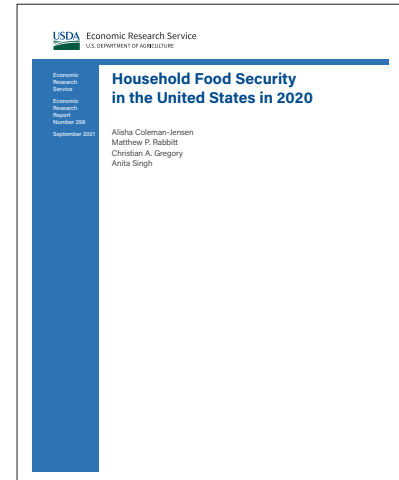
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# Household Food Security in the United States in 2020

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. However, some 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 aim to increase food security by providing low-income households access to food for a healthful diet, as well as 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 that cover household food security, food expenditures, and use of Federal nutrition assistance programs in 2020. The COVID-19 pandemic began in the United States in 2020 and affected public health and the economy, with resulting changes to Federal, State, and local policies, programs, and benefits; changes to existing and additions of new nutrition assistance programs; and responses by charitable organizations. There was a substantial increase in assistance, including nutrition assistance and other benefits. These many changes may have affected food insecurity in different ways, and this report does not provide an analysis of possible causal impacts.

## What Did the Study Find?

In 2020, 89.5 percent of U.S. households were food secure. The remaining 10.5 percent (13.8 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 because of a lack of resources. The 2020 prevalence of food insecurity was unchanged from 10.5 percent in 2019.

In 2020, 3.9 percent of U.S. households (5.1 million households) had *very low food security*, not significantly different from 4.1 percent in 2019. 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 because of limited resources.

### *Findings for households with children:*

Children were food insecure at times during 2020 in 7.6 percent of U.S. households with children (2.9 million households), up from 6.5 percent in 2019. These households with *food insecurity among children* were unable at times 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.

While children are usually shielded from the disrupted eating patterns and reduced food intake that characterize very low food security, in 2020, children along with adults suffered instances of very low food security in 0.8 percent of households with children (322,000 households), up from 0.6 percent in 2019. These households with *very low food security among children* reported that children were hungry, skipped a meal, or did not eat for a whole day because there was not enough money for food.

### ***Findings for population subgroups:***

Some statistically significant changes in the prevalence of food insecurity from 2019 to 2020 occurred for some population subgroups. The prevalence of food insecurity increased for all households with children from 13.6 percent in 2019 to 14.8 percent in 2020 and was also higher in 2020 for married-couple families with children. The prevalence of food insecurity also increased for households with Black, non-Hispanic householders or reference persons (an adult household member in whose name the housing unit is owned or rented) from 19.1 percent in 2019 to 21.7 percent in 2020 and was higher in 2020 for households in the South. The prevalence of food insecurity declined from 2019 to 2020 for a few population subgroups including women living alone, men living alone, households with White, non-Hispanic reference persons, and households in the Midwest.

### ***Findings for food spending and Federal nutrition assistance participation:***

The typical (median) food-secure household spent 18 percent more for food than the typical food-insecure household of the same size and composition. These estimates include food purchases made with Supplemental Nutrition Assistance Program (SNAP) benefits.

About 55 percent of food-insecure households in the survey reported that in the previous month, they 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.

Reported participation in the National School Lunch Program was lower among food-insecure households in 2020 (19.5 percent) than in 2019 (27.6 percent). USDA implemented the Pandemic Electronic Benefit Transfer (P-EBT) program in 2020 to serve eligible school children affected by pandemic-related school closures. The survey, however, did not measure P-EBT participation.

### ***Findings for labor force participation and food insecurity during COVID-19 pandemic:***

In the 30-day period from mid-November to mid-December 2020, households with a reference person who was not employed (unemployed or not in labor force) had a higher prevalence of food insecurity (8.0 percent) than all U.S. households (5.7 percent), while those with an employed reference person had a lower food insecurity prevalence (4.2 percent).

The prevalence of food insecurity in the 30-day period from mid-November to mid-December was substantially higher than the national average of 5.7 percent for households with a reference person who was unable to work because of the pandemic (16.4 percent food insecure in the 30-day period) and households with a reference person who was not employed and was prevented from looking for work because of the pandemic (20.4 percent food insecure in the 30-day period).

## **How Was the Study Conducted?**

Data for the ERS food security reports come from an annual survey conducted by the Bureau of the Census as the December supplement to the monthly Current Population Survey. ERS sponsors the annual Food Security Supplement survey and compiles and analyzes the responses. The 2020 food security survey included 34,330 households that comprise a representative sample of the U.S. civilian population of about 130 million households. The food security survey asked one adult respondent per household about experiences and behaviors that indicate food insecurity during calendar year 2020, such as being unable to afford balanced meals, cutting the size of meals, 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 2020

## 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. Bureau of the Census as a supplement to the nationally representative Current Population Survey.<sup>1</sup> A major impetus for this data collection is to provide information about the prevalence and severity of food insecurity in U.S. households. Annual monitoring of food security contributes to the effective operation of the Federal nutrition assistance programs as well as private food assistance programs and other government initiatives aimed at reducing food insecurity. Previous reports in the series are available on the ERS website.

This report updates national statistics on food security in calendar year 2020, household food spending, and the use of Federal nutrition assistance by food-insecure households. It uses data collected in the December 2020 Current Population Survey Food Security Supplement—the 26th annual survey in the Nation’s food security monitoring system. A special section in this report examines food insecurity of households by employment effects of the COVID-19 pandemic experienced during the 30 days prior to the survey from mid-November to mid-December 2020. Additional statistics—including the prevalence of food insecurity during the 30 days prior to the food security survey by household characteristics, the frequency of food-insecure conditions, and use of food pantries and emergency kitchens—are available in the Statistical Supplement to this report (Coleman-Jensen et al., 2021).

Statistics in this report reflect household experiences of food hardship throughout 2020. In 2020, the COVID-19 pandemic caused a severe economic slowdown that included school and business closures that could have increased food insecurity. At the same time, the Federal Government’s responses to the pandemic included changes and additions to nutrition assistance programs, unemployment benefits, stimulus payments, and moratoriums on evictions, which collectively represented substantial investments in the safety net and which may have provided more flexibilities in monthly spending. State and local governments also responded to the pandemic, as did the charitable sector. The report does not include an analysis or assessment of how these factors may have affected food insecurity in 2020, but earlier research studies showed that increases in nutrition assistance benefits and other assistance ameliorate food insecurity (Nord and Prell, 2011; Bartfeld and Men, 2017). Some early research on the effects of public and private sector responses to the pandemic suggest positive effects on reducing food insecurity, including the Federal supplement to unemployment insurance (Berkowitz and Basu, 2021; Raifman et al., 2021) and the eviction moratorium (An et al., 2021). More research is needed to understand the dynamics of food insecurity and other food hardships in U.S. households during the pandemic.

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<sup>1</sup>See Coleman-Jensen (2015) for the history of the food security measurement project and the development of 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 throughout 2020.

## Methods

Statistics presented in this report are based on data collected in the Food Security Supplement to the Current Population Survey (CPS) conducted in December 2020.<sup>2</sup> The CPS includes about 50,000 households and is representative of the civilian, noninstitutionalized population of the United States at State and national levels.<sup>3</sup> In December 2020, 34,330 households completed the Food Security Supplement; the remaining households were unable or unwilling to do so. The U.S. Bureau of the Census calculates survey sample weights to indicate how many households were represented by each household that responded to the survey.<sup>4</sup> 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 this report are significant at the 90-percent confidence level.<sup>5</sup> Statistical significance depends both on the size of the difference of the estimates and the precision of the estimates—or the size of the standard error of the estimates. Standard errors vary across population subgroups.

Household food security statistics presented here 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 have difficulty meeting basic food needs.<sup>6</sup> Each question asks whether the condition or behavior occurred at any time during the previous 12 months and specifies the reason as a lack of money and other resources to obtain food. Voluntary fasting or dieting to lose weight are thereby excluded from the measure. The series includes three questions about the household's food conditions as a whole and seven questions about food conditions of adults in the household. If children are present, an additional eight questions about their food conditions

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<sup>2</sup>The food security survey was conducted December 13-19, 2020. Respondents are reminded in the survey to answer about their food situation “in the last 12 months, since December of last year.”

<sup>3</sup>In 2020, response rates for the monthly Current Population Survey (CPS) were down from previous years. This is believed to be an effect of the COVID-19 pandemic on data collection. The U.S. Bureau of Labor Statistics reported that the CPS response rate for December 2020 was 77 percent, up from the low of 65 percent in June 2020, but down from the average response rate of 83 percent for the 12 months ending in February 2020 (U.S. Department of Labor, U.S. Bureau of Labor Statistics, 2021).

<sup>4</sup>In 2020, 24.2 percent of households that responded to the monthly December CPS did not complete the Food Security Supplement (FSS). Supplement nonresponse was lower in 2020 than in 2019 (30.3 percent). Reweighting of the Supplement considers income and other information about households that completed the labor-force portion of the survey but not the FSS. 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. At the USDA, Economic Research Service's request, the Bureau of the Census conducted a nonresponse bias analysis of the 2015 FSS. While the analysis found that the distributions of respondents and nonrespondents differ on some demographic characteristics, those distributional differences do not necessarily indicate a nonresponse bias problem (Farnham, 2017).

<sup>5</sup>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 Current Population Survey (CPS) Food Security Supplement by the U.S. Bureau of the Census. 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 jackknife replication methods with “month in sample” groups considered as separate independent samples. This report uses the phrase “essentially unchanged” to describe differences between estimates of a statistic for two years that are not statistically significant at the 90-percent confidence level. Standard errors of all estimates are available from the authors by request.

<sup>6</sup>The methods used to measure the extent and severity of food insecurity are described in several studies (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 USDA, ERS website.

are included (see box, “Questions Used To Assess the Food Security of Households in the CPS Food Security Survey,” page 5).<sup>7</sup>

Responses to the 18 food security questions are reported in tables S-5 and S-6 of the Statistical Supplement (Coleman-Jensen et al., 2021). The number of food-insecure conditions and behaviors the household reports determine the food security status of each interviewed household.<sup>8</sup> Households are classified as food secure if they report no food-insecure conditions or 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 (based on questions 1–10 for households without children and questions 1–18 for households with children).<sup>9</sup> Households are classified as having food insecurity among children or food-insecure children if they report two or more food-insecure conditions among the children in response to questions 11–18.<sup>10</sup>

Food-insecure households are further classified as having either low food security or very low food security.<sup>11</sup> 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 (see box, “What Is ‘Very Low Food Security?’” on page 6). Households without children are classified as having very low food security if they report six or more food-insecure conditions (based on questions 1–10). 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 (based on questions 1–18).<sup>12</sup> 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 reported multiple indications of food acquisition problems and reduced diet quality, but typically have reported fewer, if any, indications of reduced food intake. Those classified as having very low food security reported multiple indications of reduced food intake and disrupted eating patterns because of inadequate resources for food. In most

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<sup>7</sup>An official Spanish translation of the food security questions is used in the survey and available on the USDA, ERS website. ERS assessed the effect of interview language on Hispanics versus non-Hispanics and found no differences in the statistical properties of the food security measure (Rabbitt and Coleman-Jensen, 2017).

<sup>8</sup>Recent analysis of possible measurement error in the food security module found evidence of underreporting of more severe items. There was no evidence of overreporting of food insecurity (Gregory, 2020).

<sup>9</sup>To reduce the survey burden on higher income respondents, households with incomes above 185 percent of the Federal poverty line that do not indicate 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 asked of all households are as follows:

- People do different things when they are running out of money for food 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? In 2020, 17.7 percent of households responded “yes,” and 82.3 percent responded “no.”
- (The lead-in to the question specifies “the last 12 months, since December of last year.”) 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? In 2020, 81.3 percent of respondents responded “enough of the kinds of food we want to eat,” 15.2 percent said “enough but not always the kinds of food we want to eat,” 2.8 percent indicated “sometimes not enough to eat,” and 0.7 percent reported “often not enough to eat.”

<sup>10</sup>Both qualitative and quantitative research studies 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 because of 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 pp. 9–10 in Coleman-Jensen, et al., (2013) for a discussion of research on parent-reported and self-reported food insecurity among children). A comprehensive review of diet quality and food security found evidence that adults shield children from food insecurity (Hanson and Connor, 2014).

<sup>11</sup>Before 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) to distinguish the physiological state of hunger from indicators of food availability. The criteria by which households were classified remained unchanged.

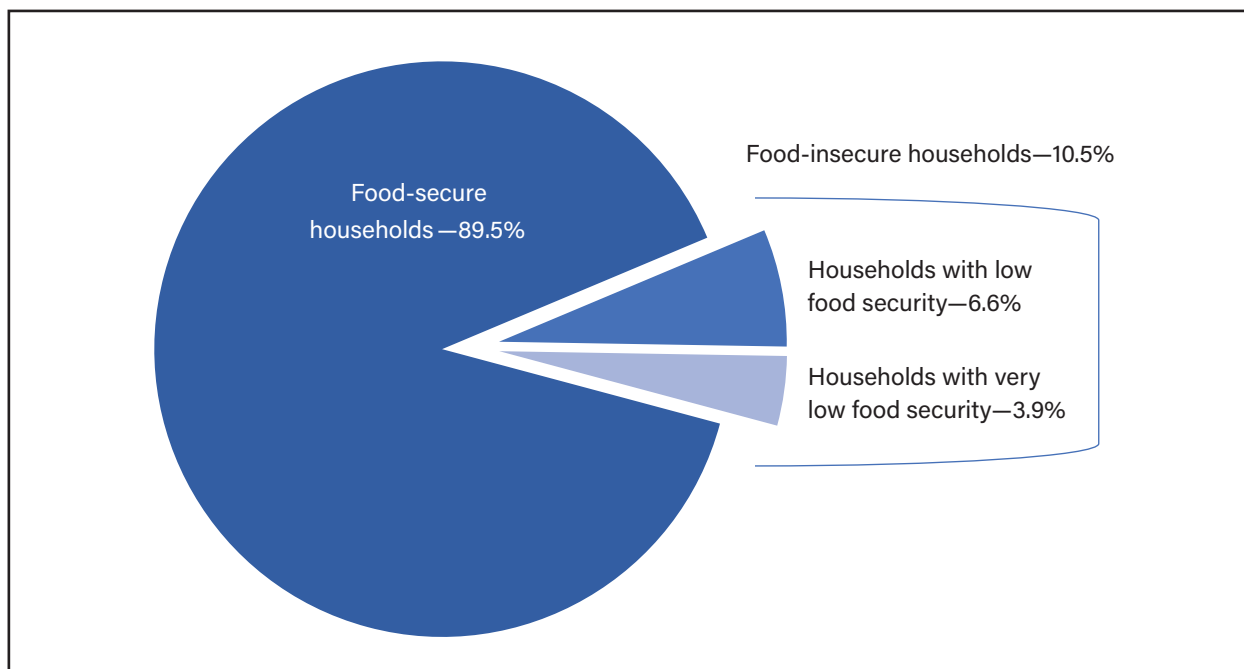
<sup>12</sup>Implications of differences in raw score thresholds for very low food security between households with and without children are discussed in Nord and Coleman-Jensen (2014) and Coleman-Jensen et al., (2017).

households with very low food security, the survey respondent responded “yes” that they were hungry at some time during the year, but did not eat, because there was not enough money for food.

## Prevalence of Food Insecurity—National Conditions and Trends

An estimated 89.5 percent of U.S. households were food secure throughout the entire year in 2020 (figure 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).<sup>13</sup> The remaining 10.5 percent (13.8 million households) were food insecure at some time during the year. Food insecurity means that households were, at times, unable to acquire adequate food for one or more household members because they had insufficient money and other resources for food. Most food-insecure households—those classified as having low food security (but not very low food security)—avoided substantial reductions or disruptions in food intake, in some cases by relying on a few basic foods and reducing variety in their diets. However, 3.9 percent (5.1 million households) had very low food security. Very low food security means that households 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. Research confirms that food insecurity affects both dietary quality and dietary quantity. Low-income food-insecure households spent less on food, purchased fewer calories overall, and had lower quality food purchases than low-income food-secure households, according to USDA’s National Food Acquisition and Purchase Survey data (Gregory et al., 2019).

Figure 1  
**U.S. households by food security status, 2020**



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

<sup>13</sup>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 its 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 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 Coleman-Jensen et al., 2013; Gregory and Coleman-Jensen, 2017; Nord, 2009a; Nord and Hopwood, 2007; Nord and Kantor, 2006).

## Questions Used to Assess the Food Security of Households in the CPS Food Security Supplement

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

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

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

### Coding of Responses

Questions 1–3 and 11–13 are coded as affirmative (i.e., possibly indicating food insecurity) if the response is “often” or “sometimes.” Questions 5, 10, and 17 are coded as affirmative if the response is “almost every month” or “some months but not every month.” The remaining questions are coded as affirmative if the response is “yes.”

#### Assessing Food Security Status in Households Without Children

Households without children are classified as food insecure if they report 3 or more indications of food insecurity in response to the first 10 questions; they are classified as having very low food security if they report 6 or more food-insecure conditions out of the first 10 questions.

#### Assessing Food Security Status in Households with Children Age 0–17

Households with children are classified as food insecure if they report 3 or more indications of food insecurity in response to the entire set of 18 questions; they are classified as having very low food security if they report 8 or more food-insecure conditions in response to the entire set of 18 questions.

The food security status of children in the household is assessed by responses to the child-referenced questions (11–18). Households reporting two or more of these conditions are classified as having food insecurity among children. Households reporting five or more are classified as having very low food security among children.

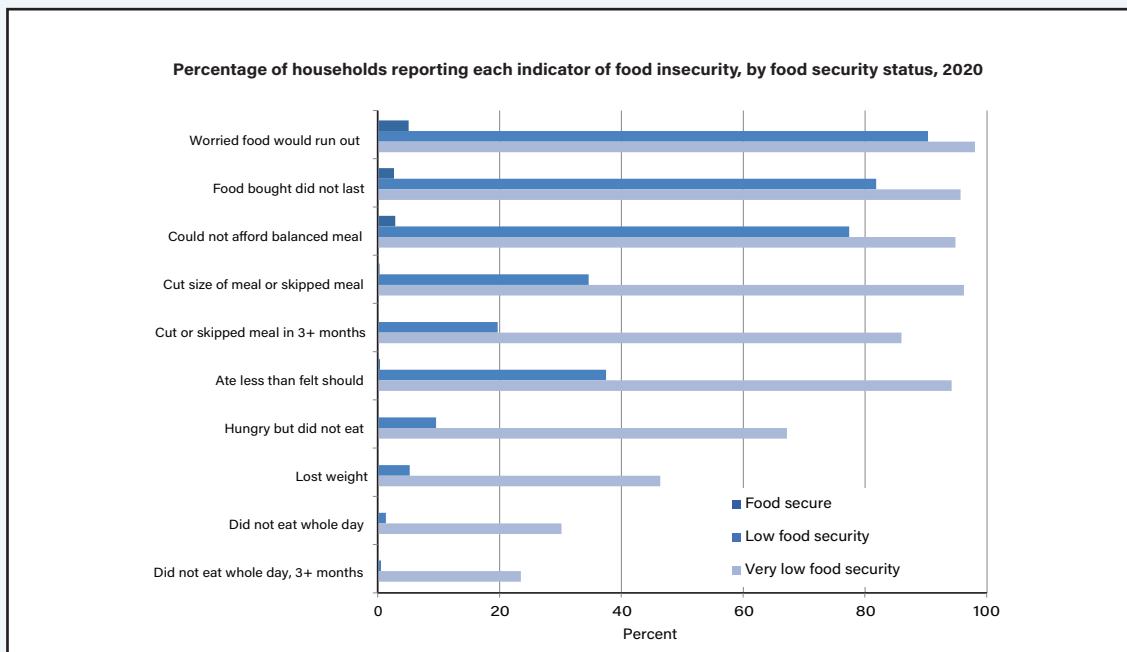
## What Is “Very Low Food Security”?

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 conditions reported by respondents reflect the definition of “very low food security”: 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 2020 survey, households classified as having very low food security (representing an estimated 5.1 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.
- 96 percent reported that the food they bought just did not last, and they did not have money to get more.
- 95 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; 86 percent reported that this had occurred in 3 or more months.
- 94 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.
- 46 percent reported having lost weight because they did not have enough money for food.
- 30 percent reported that an adult did not eat for a whole day because there was not enough money for food; 23 percent reported that this had occurred in 3 or more months.

All households without children classified as having very low food security reported at least six of these conditions. Most households with very low food security, 66 percent, reported seven or more food-insecure conditions. (Conditions reported by households with children were like those without children, but the reported food-insecure conditions of both adults and children were taken into account.)



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.



Table 1A

**Households and individuals by food security status of household, 1998–2020**

Category and year	Total <sup>1</sup>	Food secure		Food insecure					
				All		With low food security		With very low food security	
				1,000	Percent	1,000	Percent	1,000	Percent
<b>Households</b>									
2020	130,459	116,705	89.5	13,754	10.5	8,613	6.6	5,141	3.9
2019	129,621	115,959	89.5	13,662	10.5	8,340	6.4	5,322	4.1
2018	129,245	114,934	88.9	14,311	11.1	8,730	6.8	5,581	4.3
2017	127,272	112,254	88.2	15,018	11.8	9,261	7.3	5,757	4.5
2016	126,401	110,850	87.7	15,551	12.3	9,413	7.4	6,138	4.9
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
<b>All individuals (by food security status of household)<sup>1</sup></b>									
2020	324,790	286,503	88.2	38,287	11.8	25,874	8.0	12,413	3.8
2019	324,235	289,028	89.1	35,207	10.9	23,362	7.2	11,845	3.7
2018	323,005	285,778	88.5	37,227	11.5	24,577	7.6	12,650	3.9
2017	320,418	280,374	87.5	40,044	12.5	27,159	8.5	12,885	4.0
2016	319,029	277,825	87.1	41,204	12.9	26,556	8.3	14,648	4.6
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
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

Table 1A

**Households and individuals by food security status of household, 1998–2020 - continued**

Category and year	Total <sup>1</sup>	Food secure		Food insecure					
				All		With low food security		With very low food security	
				1,000	Percent	1,000	Percent	1,000	Percent
All individuals (by food security status of household) <sup>2</sup>									
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) <sup>2</sup>									
2020	251,953	225,388	89.5	26,565	10.5	17,174	6.8	9,391	3.7
2019	250,956	226,481	90.2	24,475	9.8	15,495	6.2	8,980	3.6
2018	249,443	223,390	89.6	26,053	10.4	16,576	6.6	9,477	3.8
2017	246,517	219,013	88.8	27,504	11.2	17,796	7.2	9,708	3.9
2016	245,200	216,934	88.5	28,266	11.5	17,498	7.1	10,768	4.4
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

<sup>1</sup>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 2020, these exclusions represented 308,000 households (0.2 percent of all households).

<sup>2</sup>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 are often protected from effects of the households' food insecurity.

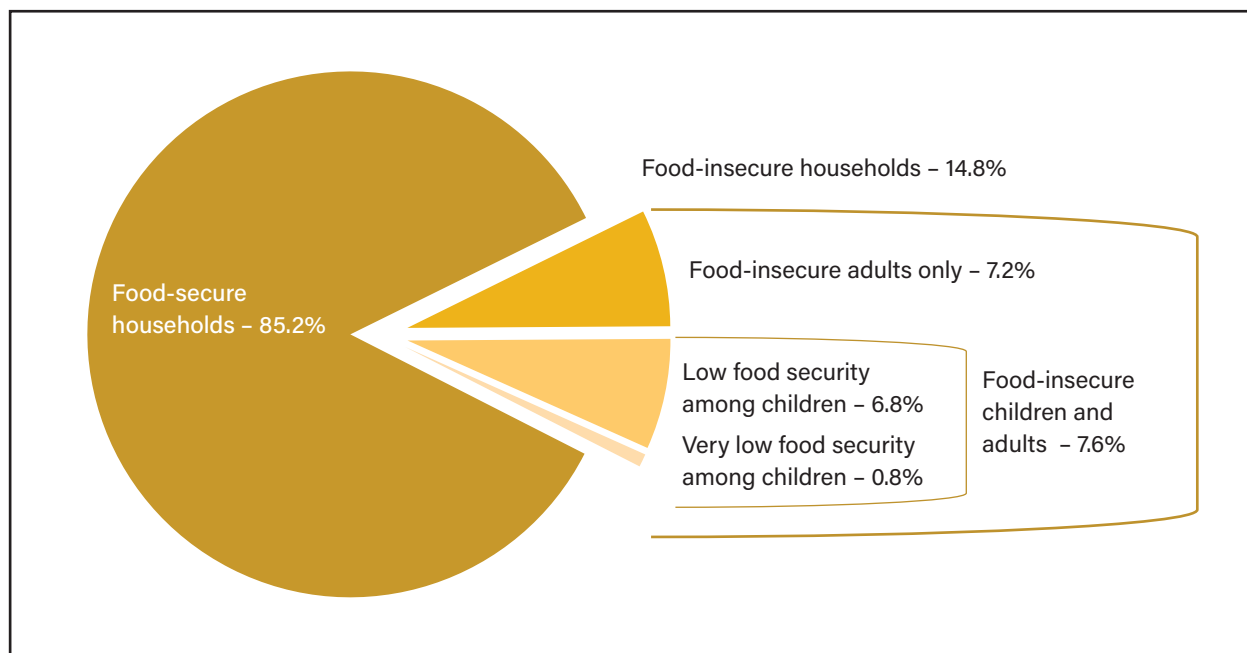
Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, Current Population Survey Food Security Supplement.



Among U.S. households with children under age 18, 85.2 percent were food secure in 2020. The remaining 14.8 percent of households with children were food insecure at some time in 2020 (figure 2, table 1B). Parents and caregivers often can 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 2020, only adults were food insecure (7.2 percent of households with children). However, both children and adults were food insecure in 7.6 percent of households with children (2.9 million households) in 2020. In 0.8 percent of households with children (322,000 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. These households are described as having very low food security among children. Sometimes only older children in such households suffer the more severe effects of food insecurity, while caregivers and other family members seek to protect younger children 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 living 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 or no effects, while adults are more severely affected. It is more precise 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.”

Figure 2  
**U.S. households with children by food security status of adults and children, 2020**



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement

Table 1B

**Households with children by food security status and children by food security status of household, 1998–2020**

Category and year	Total <sup>1</sup>		Food-secure households		Food-insecure households <sup>2</sup>		Households with food-insecure children <sup>3</sup>		Households with very low food security among children	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent	
<b>Households with children</b>										
2020	37,903	32,280	85.2	5,623	14.8	2,870	7.6	322	0.8	
2019	37,614	32,480	86.4	5,134	13.6	2,434	6.5	213	0.6	
2018	37,612	32,369	86.1	5,243	13.9	2,658	7.1	220	0.6	
2017	37,942	31,975	84.3	5,967	15.7	2,926	7.7	250	0.7	
2016	38,400	32,058	83.5	6,342	16.5	3,069	8.0	298	0.8	
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	0.9	
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	0.8	
2006	39,436	33,279	84.4	6,157	15.6	3,312	8.4	221	0.6	
2005	39,601	33,404	84.4	6,197	15.6	3,244	8.2	270	0.7	
2004	39,990	32,967	82.4	7,023	17.6	3,808	9.5	274	0.7	
2003	40,286	33,575	83.3	6,711	16.7	3,606	9.0	207	0.5	
2002	38,647	32,267	83.5	6,380	16.5	3,456	8.9	265	0.7	
2001	38,330	32,141	83.9	6,189	16.1	3,225	8.4	211	0.6	
2000	38,113	31,942	83.8	6,171	16.2	3,282	8.6	255	0.7	
1999	37,884	32,290	85.2	5,594	14.8	3,089	8.2	219	0.6	
1998	38,036	31,335	82.4	6,701	17.6	3,627	9.5	331	0.9	
<b>Children (by food security status of household)<sup>4</sup></b>										
2020	72,837	61,115	83.9	11,722	16.1	6,142	8.4	584	0.8	
2019	73,279	62,547	85.4	10,732	14.6	5,332	7.3	361	0.5	
2018	73,562	62,388	84.8	11,174	15.2	5,999	8.2	540	0.7	
2017	73,901	61,361	83.0	12,540	17.0	6,541	8.9	540	0.7	
2016	73,829	60,891	82.5	12,938	17.5	6,519	8.8	703	1.0	
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	

- continued

Table 1B

**Households with children by food security status and children by food security status of household, 1998–2020 - continued**

Category and year	Total <sup>1</sup>	Food-secure households		Food-insecure households <sup>2</sup>		Households with food-insecure children <sup>3</sup>		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									
2007	73,575	61,140	83.1	12,435	16.9	6,766	9.2	691	0.9
2006	73,587	60,959	82.8	12,628	17.2	7,065	9.6	430	0.6
2005	73,604	61,201	83.1	12,403	16.9	6,718	9.1	606	0.8
2004	73,039	59,171	81.0	13,868	19.0	7,823	10.7	545	0.7
2003	72,969	59,704	81.8	13,265	18.2	7,388	10.1	420	0.6
2002	72,542	59,415	81.9	13,127	18.1	7,397	10.2	567	0.8
2001	72,321	59,620	82.4	12,701	17.6	6,866	9.5	467	0.6
2000	71,763	58,867	82.0	12,896	18.0	7,018	9.8	562	0.8
1999	71,418	59,344	83.1	12,074	16.9	6,996	9.8	511	0.7
1998	71,282	57,255	80.3	14,027	19.7	7,840	11.0	716	1.0

<sup>1</sup>Totals exclude households for which food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2020, these exclusions represented 106,000 households with children (0.3 percent of all households with children). Children are defined as age 0-17.

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

<sup>3</sup>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.

<sup>4</sup>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 are often protected from effects of the households' food insecurity.

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

In 2020, 38.3 million people lived in food-insecure households (table 1A, middle panel). They constituted 11.8 percent of the U.S. civilian noninstitutionalized population and included 26.6 million adults (table 1A, bottom panel) and 11.7 million children (table 1B, bottom panel). About 6.1 million children (8.4 percent of children) lived in households where one or more child was food insecure. About 9.4 million adults (3.7 percent of adults) lived in households with very low food security (table 1A), and 584,000 children (0.8 percent of children) lived in households with very low food security among children (table 1B, bottom panel).

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 (Coleman-Jensen et al., 2021).

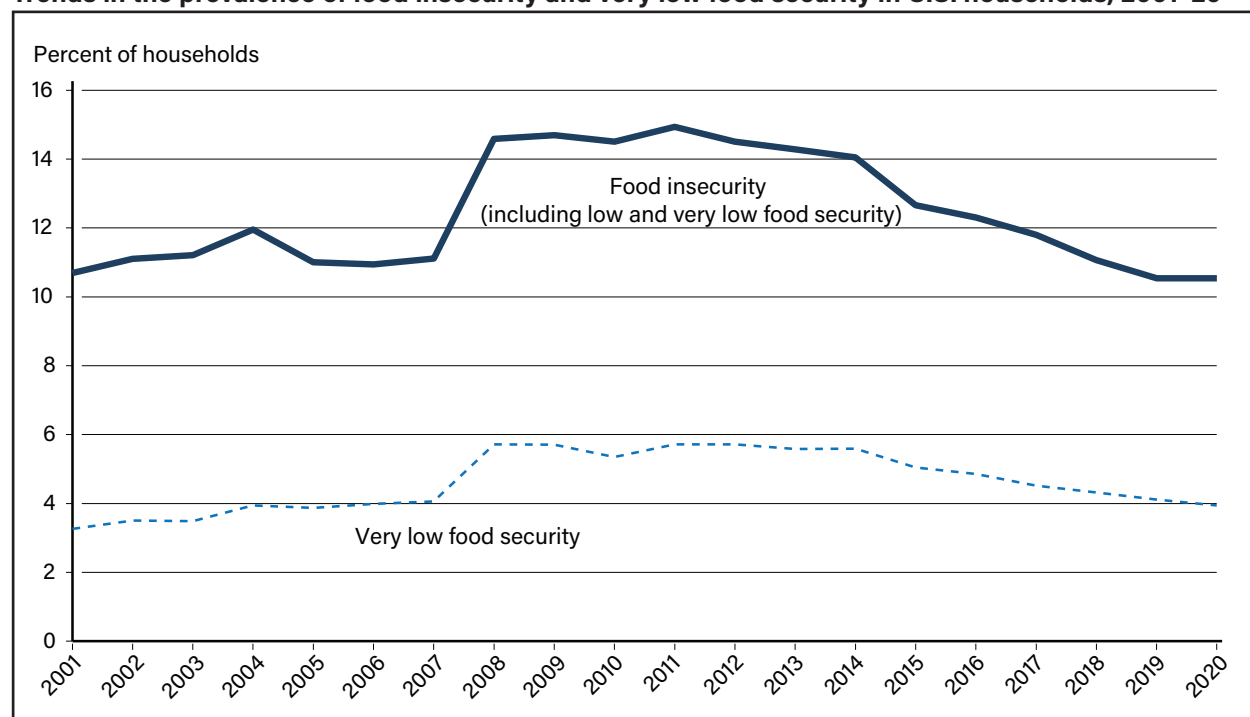
When interpreting food security statistics in this report, readers should remember that households were classified as having low or very low food security based on their experience of the conditions indicated in the survey questions at any time during the previous 12 months. The prevalence of these conditions on any given day is far below the corresponding annual prevalence. For example, the prevalence of very low food security during the 30 days before the December 2020 survey is 2.3 percent (table S-4 in Coleman-Jensen et al., 2021). Most households that reported experiencing food-insecure conditions during the previous 30 days reported experiencing the conditions in 1 to 7 days during the month (see table S-9 in Coleman-Jensen et

al., 2021; and see box, “When Food Insecurity Occurs in U.S. Households, It Is Usually Recurrent But Not Constant”).<sup>14</sup>

The prevalence of food insecurity was unchanged from 2019 to 2020 at 10.5 percent (figure 3, table 1A; see box, “Understanding Differences in 2020 Food Hardship Estimates”). Regarding earlier trends, a statistically significant decline in the prevalence of food insecurity from 11.1 percent in 2018 to 10.5 percent occurred in 2019 (figure 3, table 1A). For the first time in 2019, food insecurity was statistically significantly below the 11.1 percent pre-recession level of 2007. Year-to-year declines in food insecurity from 2014 to 2015 and 2016 through 2018 were also statistically significant. Some year-to-year changes were not statistically significant; that is, the changes were within the range that could occur from sampling variation. The cumulative decline from 2011 (14.9 percent) to 2014 (14.0 percent) was statistically significant. In the previous decade, food insecurity increased from 10.7 percent in 2001 to 11.9 percent in 2004, declined to about 11 percent in 2005-07, then increased significantly in 2008 (to 14.6 percent), and remained essentially unchanged (that is, the difference was not statistically significant) at that level in 2009 and 2010.

The prevalence of very low food security in 2020 (3.9 percent) was not significantly different from the prevalence in 2019 (4.1 percent; figure 3, table 1A). The prevalence of very low food security in 2020 was significantly lower than the prevalence in 2018 (4.3 percent). Statistically significant year-to-year declines in very low food security occurred from 2014 to 2015 and 2016 to 2017. The prevalence of very low food security was essentially unchanged from 2011 (5.7 percent) through 2014. The prevalence of very low food security

Figure 3  
Trends in the prevalence of food insecurity and very low food security in U.S. households, 2001-20



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

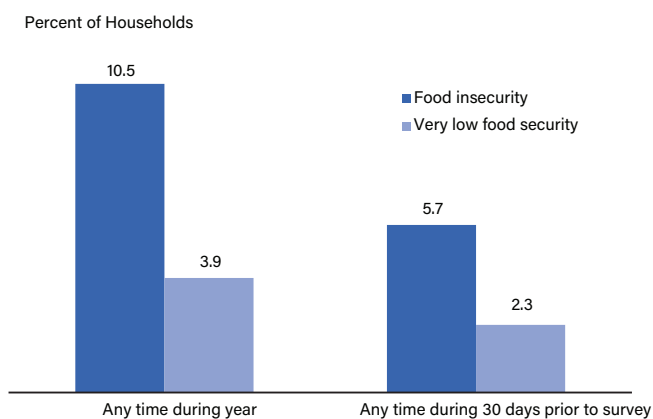
<sup>14</sup>Starting in 2019, the USDA, Economic Research Service no longer provides an estimated average daily prevalence of very low food security. This is because of a change in Census processing of continuous variables to reduce the risk of disclosure related to a small number of households reporting a single value. Beginning with the 2019 Current Population Survey Food Security Supplement data, all continuous variables for the number of days out of the previous 30 days that food-insecure conditions occurred are only released after being categorized into ranges of number of days. Those categorical variables result in less precise estimates of the average daily prevalence of food insecurity. See table S-9 in the online Statistical Supplement for the percent of households reporting each of the food-insecure conditions in increments of 1 to 7 days, 8 to 14 days, and 15 to 30 days (Coleman-Jensen et al., 2021).

## When Food Insecurity Occurs in U.S. Households, It Is Usually Recurrent but Not Constant

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 not usually constant. 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. Readers should remember this 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 2020:

- About one-fourth of U.S. 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. About three-fourths of respondent households experienced the conditions recurrently, in 3 or more months of the year.
- About one-fourth of food-insecure households and one-third of those with very low food security experienced the associated conditions frequently or chronically. That is, the conditions occurred often, or 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 2020, 7.5 million households (5.7 percent of all households) were food insecure—about 54 percent of the number that were food insecure at any time during the year (see Statistical Supplement table S-4, Coleman-Jensen et al., 2021).
- 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 2020, 3 million households (2.3 percent of all households) had very low food security—about 59 percent of the number with very low food security at some time during the year (see Statistical Supplement table S-4).

Prevalence of food insecurity and very low food security, by reference period (2020)



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

continued

## When Food Insecurity Occurs in U.S. Households, It Is Usually Recurrent but Not Constant - continued

- 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.

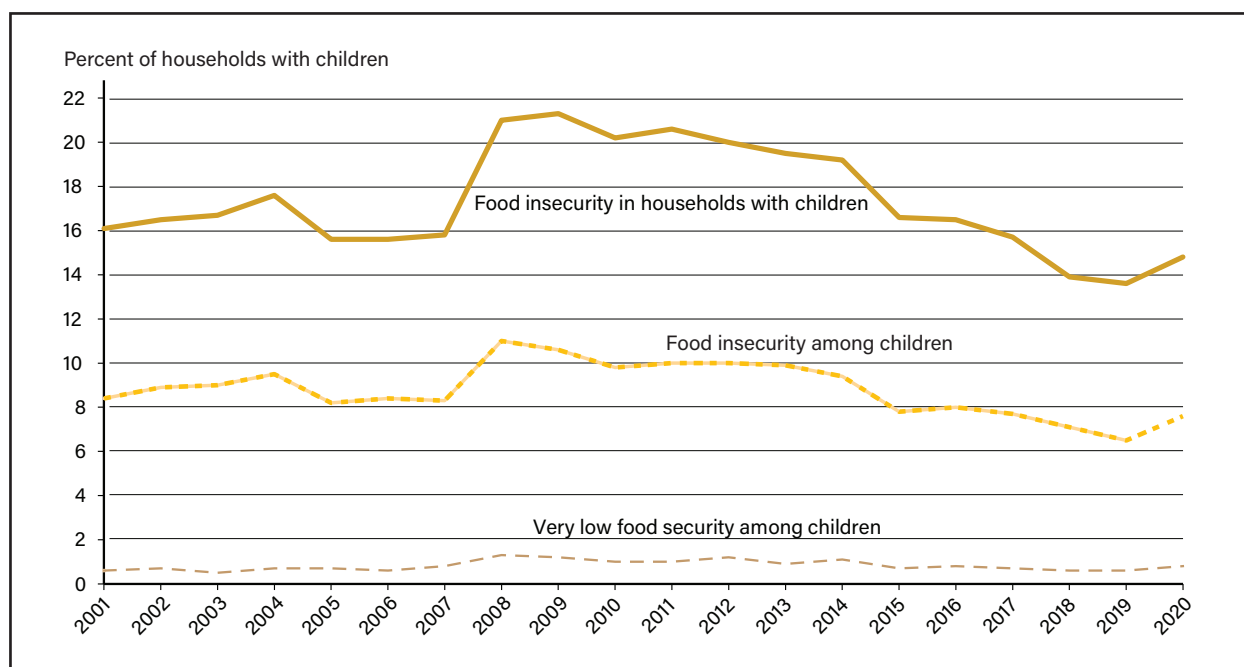
The omission of homeless families and individuals from these daily statistics biases the statistics downward, and the bias may be substantial relative to the estimates, especially for the most severe conditions.

Statistical Supplement tables S-7 to S-9 (Coleman-Jensen et al., 2021) provide information on how often conditions indicating food insecurity occurred, as reported by respondents to the December 2020 Food Security Supplement. 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.

was also 5.7 percent in 2008 and 2009. Before 2008, the prevalence of very low food security increased from 3.3 percent in 2001 to 3.9 percent in 2004 and remained essentially unchanged through 2007 (4.1 percent).

The prevalence of food insecurity in households with children was statistically significantly higher in 2020 (14.8 percent) than in 2019 (13.6 percent; figure 4, table 1B). The 2020 prevalence of food insecurity in households with children was not statistically different from the prevalence in 2017 or 2018 but was significantly below the prevalence in 2016 (16.5 percent). The percentage of households with food insecurity among children in 2020 (7.6 percent) was up significantly from the 2019 prevalence (6.5 percent). The prevalence of food insecurity among children in 2020 was not statistically different from the prevalence in 2018 through 2015 but was significantly lower than the prevalence in 2014 (9.4 percent). The percentage of households with very low food security among children in 2020 (0.8 percent) was up significantly from 2018 and 2019 (0.6 percent) and was not statistically significantly different from the prevalence in 2013 through 2017.

Figure 4  
Trends in the prevalence of food insecurity in households with children, 2001-20



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

## Understanding Differences in 2020 Food Hardship Estimates

In response to the Coronavirus Pandemic, the U.S. Department of Commerce, Bureau of the Census worked with USDA, Economic Research Service (ERS) and other Federal agencies to develop the Household Pulse Survey (HPS). Beginning in April 2020, the HPS produced timely information on the economic and social effects of COVID-19 on U.S. households. The HPS is a weekly or biweekly online survey that asks respondents about educational, employment, health, housing, and food-related outcomes. Data were collected for Phase 1 of the HPS during April 23–July 21, 2020; for Phase 2 during August 19–October 26, 2020; and for Phase 3.0 during October 28, 2020–March 29, 2021. Phase 3.1 began April 14, 2021 and Phase 3.2 began on July 21, 2021. The HPS includes an indicator of food sufficiency for U.S. households which is a single question asking, “In the last 7 days, which of these statements best describes the food eaten in your household? Select only one answer: (1) Enough of the kinds of food (I/we) wanted to eat; (2) Enough, but not always the kinds of food (I/we) wanted to eat; (3) Sometimes not enough to eat; (4) Often not enough to eat.” Responses of (3) or (4) are classified as food insufficient. Food insufficiency in the HPS means that a household did not have enough food to eat sometimes or often in the last 7 days.

Estimates of food insufficiency from the HPS indicate a substantial increase in food insufficiency with the onset of the pandemic and its economic effects. The USDA, Economic Research Service (ERS) has reported these findings on the public website (see: “COVID-19 Economic Implications for Agriculture, Food, and Rural America” on the ERS website). According to the HPS, the prevalence of food insufficiency (low and very low food sufficiency) among U.S. adults rose from 9.5 percent as of April 23, 2020 to 13.4 percent as of December 21, 2020, before declining to 8.0 percent as of April 26, 2021. Food insufficiency as measured in the December 2020 CPS-FSS was 3.5 percent, compared with 3.7 percent in December 2019.

A number of research studies have been published using the HPS and other data to understand trends in food hardship during the Pandemic.<sup>1</sup> The findings from some studies suggest that food insufficiency increased substantially during the pandemic. See, for example, Bauer 2020; Bitler, et al., 2020; and Ziliak 2021. Bauer (2020) uses the HPS and the Brookings Survey of Mothers with Young Children to examine food insufficiency overall and food insufficiency among children and finds high rates with both surveys. Bitler and colleagues (2020) use multiple measures of food hardship from two data sources to examine economic hardship during 2020. They use some food security items from the COVID Impact Survey and examine food pantry use and expectations about the ability to pay for food from the HPS. They find all these measures of food hardship were elevated significantly during the Pandemic in 2020. Ziliak (2021) used the HPS to examine food insufficiency overall and for adults age 60 and over and finds high rates for both groups. Ziliak also found greater receipt of charitable food for all adults during 2020, but not for elderly adults.

Meanwhile, some other data sources showed similar findings to the December CPS-FSS trends in food insecurity from 2019 to 2020. An internet survey that was previously used to approximate national food security estimates from the CPS-FSS was fielded in May 2020 and found no detectable increase in food insecurity for all U.S. households, but did find an increase for households with children (Ahn and Norwood, 2020). The Urban Institute reported a decline in food insecurity from December 2019 to December 2020 using the Well-Being and Basic Needs Survey (Karpman and Zucherman, 2021). The

<sup>1</sup>There have been many published studies in 2020 and 2021 that examine food hardships during the pandemic, only a few of those studies are examined in these paragraphs.



## Understanding Differences in 2020 Food Hardship Estimates - continued

authors found that families who lost employment or income because of the pandemic relied on safety net programs and various relief measures, including charitable food donations, to meet their needs.

Readers may wonder why the HPS findings on food insufficiency differ considerably from the CPS-FSS and some other surveys. Ziliak (2020) finds that the demographic characteristics of respondents are similar between the HPS and CPS-FSS. This is expected given that both Census surveys are weighted to population totals. Response rates differ considerably between the HPS and CPS-FSS. In 2020, about 76 percent of CPS respondents also completed the FSS interview. Response rates varied across weeks of the HPS data collection from 1 percent to 10 percent. The much lower response rates to the HPS could have resulted in non-response bias that was not mitigated by weighting the sample based on observable characteristics. In addition to nonresponse, other factors such as frame coverage could impact estimates from the HPS (Peterson et al., 2021). More research is needed to understand how differences in response rates, sampling frame and methods, survey mode, survey content, and other differences between the surveys may have affected estimates from the HPS and CPS-FSS.

Another major difference between the HPS and CPS-FSS data is the reference period used for the food sufficiency question. The HPS food insufficiency item asks respondents to assess what best describes their food situation in the last 7 days, while the CPS-FSS food insufficiency item asks respondents to assess what best describes their food situation in the last 12 months. Respondents may accurately give different responses to this question based on different reference periods. A respondent may believe they did not have enough to eat during a 7-day period, but when reflecting on the last 12 months, may believe that what best describes the entire period is they had enough to eat. This is an important difference in that the full food security measure refers to the most severe food hardship a household experiences over the course of the year since the questions ask if respondents “ever” or “sometimes” experienced specific food hardships. Meanwhile, the food insufficiency question asks what “best describes” a household’s food situation as a whole, not what their worst food hardship might have been. The HPS is the first Federal survey to include the food insufficiency question with a 7-day reference period, so there is no research to date to understand how short-term versus long-term reporting of food insufficiency may differ. More research is needed to understand the timing of any food hardships experienced in 2020, and how respondents may have reported food hardships across different surveys, different measures, and different reference periods.

## Prevalence of Food Insecurity by Selected Household Characteristics

The prevalence of food insecurity varied considerably in 2020 among households with different demographic and economic characteristics (table 2). Differences in food security across demographic and geographic groups partly reflect differences in income across those groups; although no adjustment is made for income in the statistics presented in this report, food insecurity was strongly associated with income. For example, 35.3 percent of households with annual incomes below the official poverty line (household income-to-poverty ratio under 1.00) were food insecure, compared with just 4.9 percent of those with incomes at or above 185 percent of the poverty line.<sup>15</sup> (Table S-1 in the Statistical Supplement (Coleman-Jensen et al., 2021) shows food insecurity by selected household characteristics for households with annual income below 130 percent of the poverty line.)

<sup>15</sup>The Federal poverty line was \$26,246 for a family of four (two adults and two children) in 2020.



Rates of food insecurity were statistically significantly below the national average of 10.5 percent for married-couple families with children (9.5 percent);<sup>16</sup> households with no children (8.8 percent), especially those with more than one adult and no children (7.1 percent); households with elderly persons (6.9 percent); and the elderly living alone (8.3 percent).<sup>17</sup> The prevalence of food insecurity was also below the national average for households with White, non-Hispanic adult reference persons (7.1 percent) and non-Hispanic reference persons of other, or multiple, races (8.8);<sup>18</sup> and those with incomes at or above 185 percent of poverty (4.9 percent).

Rates of food insecurity in 2020 were statistically significantly higher than the national average (10.5 percent) for the following groups:

- All households with children (14.8 percent)<sup>19</sup>
- Households with children under age 6 (15.3 percent)
- Households with children headed by a single woman (27.7 percent) or a single man (16.3 percent)<sup>20</sup>
- Households with Black, non-Hispanic (21.7 percent) and Hispanic (17.2 percent) household reference persons
- Households with incomes below 185 percent of the poverty threshold (28.6 percent)

Across residential classifications, food insecurity was higher in principal cities of metropolitan areas (12.7 percent) and nonmetropolitan (rural) areas (11.6 percent) than in suburbs/exurbs and other metropolitan areas outside principal cities (8.8 percent).<sup>21</sup> Compared with the national average, food insecurity was significantly higher in principal cities and nonmetropolitan areas, but significantly lower in metropolitan areas outside principal cities. Regionally, the prevalence of food insecurity in the Northeast (9.3 percent), Midwest (9.5 percent), and West (9.5) was significantly below the U.S. average, while the prevalence in the South (12.3 percent) was significantly above the U.S. average (table 2).

Statistics in table 2 can also be used to calculate the share that each demographic group contributes to the population of food-insecure households. Among all food-insecure households in 2020, 40.9 percent were households with children, 19.7 percent of food-insecure households were female-headed households with children (labeled “Female head, no spouse” in table), and 16.9 percent of food-insecure households were

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<sup>16</sup>Beginning with the 2020 Current Population Survey same-sex partners are identified in the data. The married-couple category now includes same-sex married partners.

<sup>17</sup>“Elderly” in this report refers to persons age 65 and older.

<sup>18</sup>The “householder” or “household reference person” refers to the person in whose name the housing unit is owned or rented. If the house is owned or rented jointly by a married couple, the household reference person may be either spouse. Previously the household reference person was referred to as the household head.

<sup>19</sup>About 40 percent 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 and adults are considered in assessing the food security status of households with children. However, for both types of households, a total of three indications of food insecurity is required for classification as food insecure. In 2020, even with the child-referenced questions omitted from the scale, 12.5 percent of households with children would be classified as food insecure (that is, as having food insecurity among adults), compared with 8.8 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). See Coleman-Jensen, et al., (2017) for a discussion of a comparable classification method for households with and without children.

<sup>20</sup>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, other relatives of the reference person, or unrelated roomers or boarders.

<sup>21</sup>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. Bureau of the Census in collaboration with other Federal agencies. Census implemented the revised delineations beginning with the 2014 Current Population Survey Food Security Supplement. Food security prevalence statistics by area of residence for 2014 and later 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.

married-couple households with children.<sup>22</sup> Among all food-insecure households in 2020, 59.1 percent were households with no children. About 20.6 percent of all food-insecure households included elderly adults. Low-income households with reported incomes below 185 percent of the poverty threshold made up most food-insecure households, 53.4 percent. Households with reported incomes at or above 185 percent of poverty made up 25.1 percent of all food-insecure households, and households with unknown income made up the remaining 21.5 percent of all food-insecure households in 2020.

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<sup>22</sup>The share of food-insecure households that are female-headed households with children can be calculated as  $(2,704/13,754) = 0.197$ . Similarly, the share of food-insecure households that are married-couple households with children is  $(2,329/13,754) = 0.169$ .

Table 2

**Households by food security status and selected household characteristics, 2020**

Category	Total <sup>1</sup>	Food secure		Food insecure					
				All		With low food security		With very low food security	
				1,000	Percent	1,000	Percent	1,000	Percent
All households	130,459	116,705	89.5	13,754	10.5	8,613	6.6	5,141	3.9
Household composition									
With children < 18 years	37,903	32,280	85.2	5,623	14.8	4,166	11.0	1,457	3.8
With children < 6 years	16,119	13,655	84.7	2,464	15.3	1,927	12.0	537	3.3
Married-couple families	24,420	22,091	90.5	2,329	9.5	1,869	7.6	460	1.9
Female head, no spouse	9,774	7,070	72.3	2,704	27.7	1,905	19.5	799	8.2
Male head, no spouse	3,296	2,758	83.7	538	16.3	357	10.8	181	5.5
Other household with child <sup>2</sup>	413	362	87.7	51	12.3	NA	NA	NA	NA
With no children < 18 years	92,556	84,425	91.2	8,131	8.8	4,447	4.8	3,684	4.0
More than one adult	54,662	50,775	92.9	3,887	7.1	2,247	4.1	1,640	3.0
Women living alone	20,881	18,579	89.0	2,302	11.0	1,229	5.9	1,073	5.1
Men living alone	17,013	15,072	88.6	1,941	11.4	970	5.7	971	5.7
With elderly	41,050	38,218	93.1	2,832	6.9	1,797	4.4	1,035	2.5
Elderly living alone	15,566	14,280	91.7	1,286	8.3	755	4.9	531	3.4
Race/ethnicity of household reference persons									
White, non-Hispanic	85,466	79,387	92.9	6,079	7.1	3,547	4.1	2,532	3.0
Black, non-Hispanic	16,686	13,058	78.3	3,628	21.7	2,295	13.7	1,333	8.0
Hispanic <sup>3</sup>	18,543	15,359	82.8	3,184	17.2	2,263	12.2	921	5.0
Other, non-Hispanic	9,764	8,903	91.2	861	8.8	507	5.2	354	3.6
Household income-to-poverty ratio									
Under 1.00	10,514	6,800	64.7	3,714	35.3	2,203	20.9	1,511	14.4
Under 1.30	16,474	11,021	66.9	5,453	33.1	3,307	20.1	2,146	13.0
Under 1.85	25,649	18,305	71.4	7,344	28.6	4,582	17.8	2,762	10.8
1.85 and over	70,710	67,263	95.1	3,447	4.9	2,283	3.3	1,164	1.6
Income unknown	34,100	31,138	91.3	2,962	8.7	1,748	5.1	1,214	3.6
Area of residence <sup>4</sup>									
Inside metropolitan area	112,150	100,523	89.6	11,627	10.4	7,319	6.6	4,308	3.8
In principal cities <sup>5</sup>	38,788	33,875	87.3	4,913	12.7	2,974	7.7	1,939	5.0
Not in principal cities	56,007	51,059	91.2	4,948	8.8	3,263	5.8	1,685	3.0
Outside metropolitan area	18,308	16,181	88.4	2,127	11.6	1,294	7.1	833	4.5
Census geographic region									
Northeast	22,247	20,177	90.7	2,070	9.3	1,337	6.0	733	3.3
Midwest	27,757	25,114	90.5	2,643	9.5	1,416	5.1	1,227	4.4
South	50,770	44,536	87.7	6,234	12.3	4,055	8.0	2,179	4.3
West	29,685	26,878	90.5	2,807	9.5	1,805	6.1	1,002	3.4

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

<sup>1</sup>Totals exclude 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 2020, these exclusions represented 308,000 households (0.2 percent of all households).

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

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

<sup>4</sup>Metropolitan area residence is based on 2013 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2014 and later but are not precisely comparable with those of earlier years.

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

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

The prevalence of very low food security in various types of households followed a pattern like that observed for food insecurity (table 2). Percentages were statistically significantly lower than the 2020 national average of 3.9 percent for married couples with children (1.9 percent); multiple-adult households with no children (3 percent); households with elderly persons (2.5 percent); households with White, non-Hispanic reference persons (3 percent); households with incomes at or above 185 percent of the poverty line (1.6 percent); households in suburbs and exurbs outside principal cities within metropolitan areas (3 percent); and households in the Northeast (3.3 percent) and West (3.4 percent).

The prevalence of very low food security was statistically significantly higher than the national average (3.9 percent) for the following groups:

- Households with children headed by a single woman (8.2 percent),
- Women living alone (5.1 percent) and men living alone (5.7 percent),
- Households with reference persons who are Black, non-Hispanic (8 percent) and Hispanic (5 percent),
- Households with incomes below 185 percent of the poverty line (10.8 percent),
- Households located in principal cities (5 percent) and outside metropolitan areas or rural areas (4.5 percent).

In 7.6 percent of households with children, one or more child was food insecure in 2020 (table 3).<sup>23</sup> Among household categories, the percentage of households with food-insecure children was significantly lower in married-couple households (4.6 percent); households with a White, non-Hispanic reference person (4.6 percent); households with incomes at or above 185 percent of the poverty line (2.3 percent); and metropolitan households located in suburbs and exurbs outside of principal cities (6.3 percent). The percentage of households with food-insecure children was significantly higher for female-headed households (14.8 percent); households with a Black, non-Hispanic reference person (13 percent) or Hispanic reference person (12.2 percent); households with incomes below 185 percent of the poverty line (17.2 percent); and households in principal cities (9.8 percent).

Compared with the prevalence for all households with children in 2020 (0.8 percent), very low food security among children was significantly less prevalent in married-couple families (0.5 percent), households with a White, non-Hispanic reference person (0.4 percent), and households in the West (0.5 percent). Very low food security among children in 2020 was significantly more prevalent in households headed by a single woman (1.7 percent); households with a Black, non-Hispanic reference person (1.7 percent) or Hispanic reference person (1.8 percent); households with incomes below 185 percent of the poverty line (1.7 percent) and households in the Midwest (1.5 percent).

Some statistically significant changes occurred in the prevalence of food insecurity from 2019 to 2020 for some population subgroups (figure 5).<sup>24</sup> The prevalence of food insecurity increased for all households with children from 13.6 percent in 2019 to 14.8 percent in 2020 and for married couple families with children (7.5 percent in 2019 to 9.5 percent in 2020). The prevalence of food insecurity also increased for households with Black, non-Hispanic reference persons (from 19.1 percent in 2019 to 21.7 percent in 2020) and for households in the South (from 11.2 percent in 2019 to 12.3 percent in 2020). The prevalence of food insecurity declined from 2019 to 2020 for a few population subgroups. Food insecurity declined significantly for women living alone (from 13 percent in 2019 to 11 percent in 2020), men living alone (from 12.8 percent in 2019 to 11.4 percent in 2020), households with White, non-Hispanic reference persons (from 7.9 percent in 2019 to 7.1 percent in 2020), and households in the Midwest (from 10.5 percent in 2019 to 9.5 percent in 2020).

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<sup>23</sup>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 5.

<sup>24</sup>Estimates of food insecurity and very low food security for 2019 were published in *Household Food Security in the United States in 2019* (Coleman-Jensen et al., 2020).

Table 3

**Prevalence of food security and food insecurity in households with children by selected household characteristics, 2020**

Category	Total <sup>1</sup>	Food-secure households		Food-insecure households <sup>2</sup>		Households with food-insecure children <sup>3</sup>		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	37,903	32,280	85.2	5,623	14.8	2,870	7.6	322	0.8
Household composition									
With children < 6 years	16,119	13,655	84.7	2,464	15.3	1,128	7.0	119	0.7
Married-couple families	24,420	22,091	90.5	2,329	9.5	1,115	4.6	112	0.5
Female head, no spouse	9,774	7,070	72.3	2,704	27.7	1,447	14.8	164	1.7
Male head, no spouse	3,296	2,758	83.7	538	16.3	277	8.4	NA	NA
Other household with child <sup>4</sup>	413	362	87.7	51	12.3	NA	NA	NA	NA
Race/ethnicity of household reference persons									
White, non-Hispanic	20,904	18,886	90.3	2,018	9.7	966	4.6	78	0.4
Black, non-Hispanic	5,418	3,941	72.7	1,477	27.3	704	13.0	90	1.7
Hispanic <sup>5</sup>	8,143	6,366	78.2	1,777	21.8	991	12.2	143	1.8
Other, non-Hispanic	3,437	3,085	89.8	352	10.2	210	6.1	NA	NA
Household income-to-poverty ratio									
Under 1.00	4,300	2,560	59.5	1,740	40.5	918	21.3	94	2.2
Under 1.30	6,465	4,032	62.4	2,433	37.6	1,256	19.4	128	2.0
Under 1.85	10,080	6,686	66.3	3,394	33.7	1,731	17.2	174	1.7
1.85 and over	19,432	18,325	94.3	1,107	5.7	455	2.3	NA	NA
Income unknown	8,391	7,270	86.6	1,121	13.4	684	8.2	114	1.4
Area of residence <sup>6</sup>									
Inside metropolitan area	32,790	27,991	85.4	4,799	14.6	2,458	7.5	290	0.9
In principal cities <sup>7</sup>	10,563	8,620	81.6	1,943	18.4	1,033	9.8	145	1.4
Not in principal cities	17,520	15,347	87.6	2,173	12.4	1,100	6.3	100	0.6
Outside metropolitan area	5,113	4,289	83.9	824	16.1	412	8.1	32	0.6
Census geographic region									
Northeast	6,145	5,314	86.5	831	13.5	415	6.8	NA	NA
Midwest	7,794	6,719	86.2	1,075	13.8	600	7.7	119	1.5
South	15,228	12,707	83.4	2,521	16.6	1,196	7.9	126	0.8
West	8,736	7,540	86.3	1,196	13.7	659	7.5	41	0.5

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

<sup>1</sup>Totals exclude households for which food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2020, these exclusions represented 106,000 households with children (0.3 percent of all households with children).

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

<sup>3</sup>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.

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

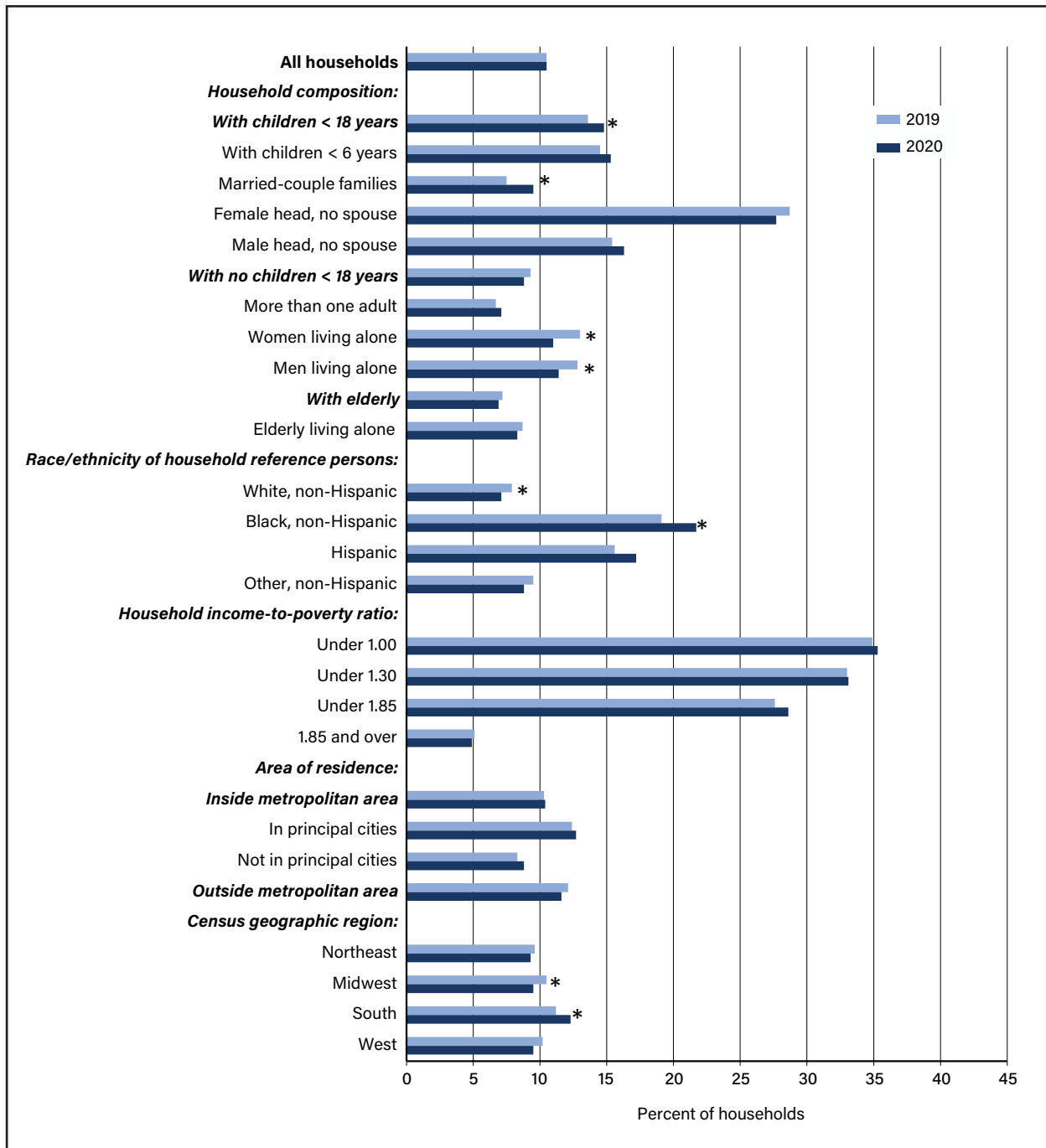
<sup>5</sup>Hispanics may be of any race.

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

<sup>7</sup>Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 14 percent of households with children in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

Figure 5  
**Prevalence of food insecurity, 2019 and 2020**

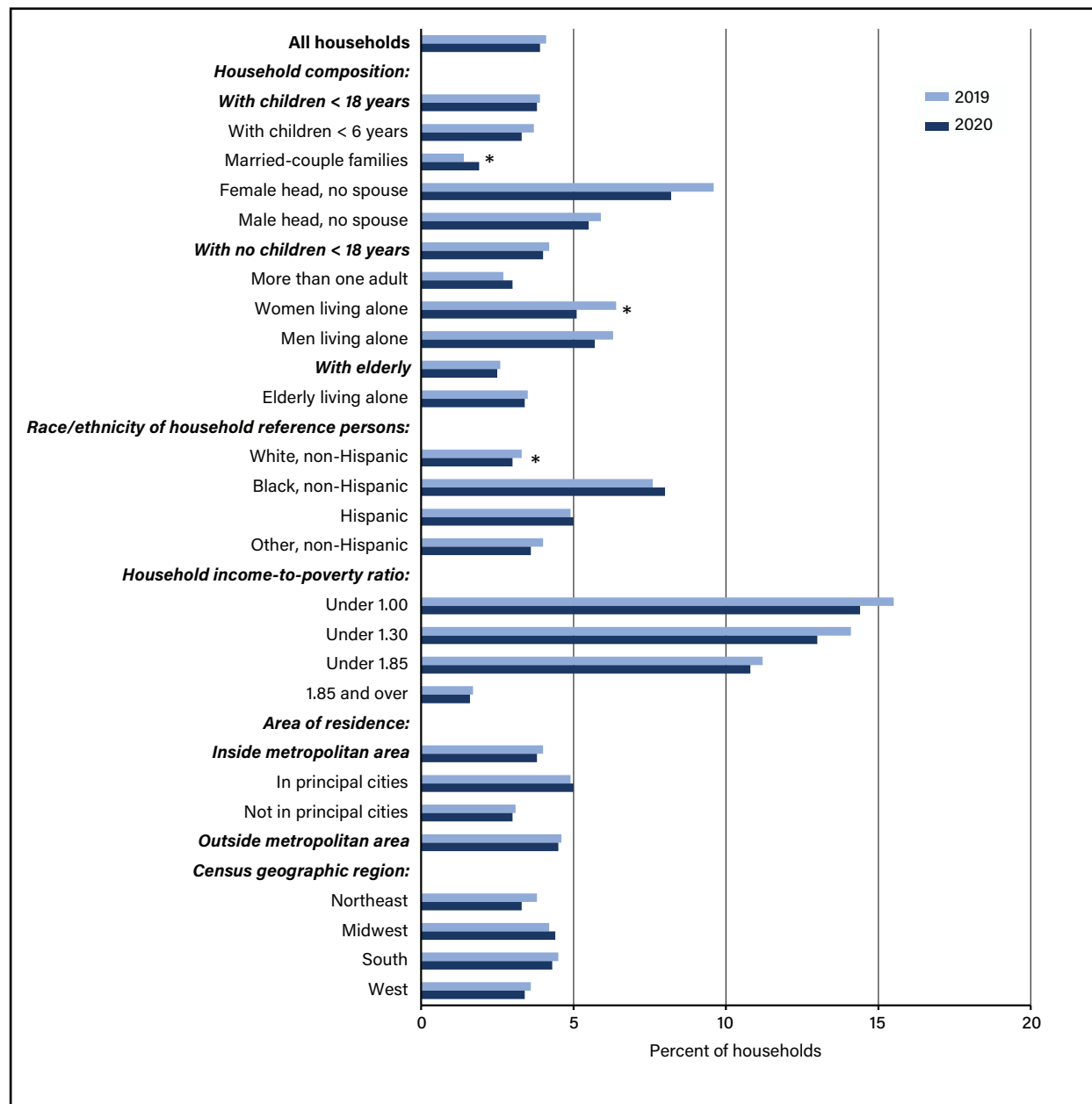


\*Change from 2019 to 2020 was statistically significant with 90-percent confidence ( $t > 1.645$ ).

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2019 and 2020 Current Population Survey Food Security Supplement.

The prevalence of very low food security (figure 6) increased significantly for married-couple families with children from 1.4 percent in 2019 to 1.9 percent in 2020. The prevalence of very low food security declined significantly from 2019 to 2020 for women living alone (from 6.4 percent in 2019 to 5.1 percent in 2020) and for households with White, non-Hispanic reference persons (from 3.3 percent in 2019 to 3.0 percent in 2020).

Figure 6  
**Prevalence of very low food security, 2019 and 2020**



\*Change from 2019 to 2020 was statistically significant with 90-percent confidence ( $t > 1.645$ ).

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2019 and 2020 Current Population Survey Food Security Supplement.



## Prevalence of Food Insecurity by State

The prevalence of food insecurity varies considerably by State. In addition to household-level characteristics such as income, employment, and household structure, the prevalence of food insecurity is also affected by State-level characteristics such as average wages, cost of housing, unemployment, and State-level policies that affect access to unemployment insurance, the State Earned Income Tax Credit, and nutrition assistance programs (Bartfeld et al., 2006; Bartfeld and Men, 2017). State-level estimates were obtained by averaging 3 years of data (2018–20) to generate a larger sample size in each State to provide more reliable statistics that allowed more precise estimates and more power to detect differences across States. Using single-year food insecurity estimates for States would make it more difficult to detect those statistically above or below the national average, especially for smaller States. Estimated prevalence rates of food insecurity during this 3-year period ranged from 5.7 percent in New Hampshire to 15.3 percent in Mississippi; estimated prevalence rates of very low food security ranged from 2.3 percent in Minnesota to 6.5 percent in Louisiana.<sup>25</sup>

The margin of error for State food insecurity rates should be considered when interpreting these statistics, 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.<sup>26</sup> 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 Louisiana than in the States with the next six 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 9 States (AL, KY, LA, MS, NM, OK, TN, TX, and WV) and lower than the national average in 15 States (CA, HI, IA, IL, MA, MN, ND, NH, NJ, OR, RI, SD, VA, VT, and WA).<sup>27</sup> In the remaining 26 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 7 States (AR, LA, ME, MS, TN, TX, and WV), lower than the national average in 10 States (CA, HI, MN, ND, NH, NJ, RI, VT, WA, and WI), and not significantly different from the national average in 33 States and the District of Columbia.

State-level rates of food insecurity and very low food security for 2018–20 are compared with 2015–17 and 2008–10 averages in table 5. Prevalence rates for the preceding 3-year period, 2015–17, are from *Household Food Security in the United States in 2017* (Coleman-Jensen et al., 2018). The 2008–10 rates are from *Household Food Security in the United States, 2010* (Coleman-Jensen et al., 2011) and are presented as a baseline to assess changes in State-level food security conditions over the past decade.<sup>28</sup>

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<sup>25</sup>A map of the States showing the prevalence of food insecurity for 2018–20 can be downloaded from the Economic Research Service website.

<sup>26</sup>Margin of error is calculated as 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 Current Population Survey Food Security Supplement.

<sup>27</sup>Standard error of difference assumes that there is no correlation between national and individual State estimates.

<sup>28</sup>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 1996–98, 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 2008–10 were calculated using jackknife 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 2018–20**

State	Number of households		Food insecurity (low or very low food security)		Very low food security	
	Average 2018-20 <sup>1</sup>	Interviewed	Prevalence	Margin of error <sup>3</sup>	Prevalence	Margin of error <sup>2</sup>
	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>Percentage points</i>	<i>Percent</i>	<i>Percentage points</i>
U.S.	129,775,000	105,700	10.7	0.21	4.1	0.14
AK	267,000	1,241	10.6	2.37	5.1	1.69
AL	2,018,000	1,908	14.0 *	1.90	5.2	1.11
AR	1,269,000	1,796	12.6	2.39	5.9 *	1.37
AZ	2,867,000	1,838	11.0	1.52	3.8	0.77
CA	14,090,000	8,419	9.8 *	0.63	3.3 *	0.40
CO	2,356,000	1,101	10.1	1.67	4.3	1.08
CT	1,432,000	966	11.8	2.27	4.9	1.37
DC	336,000	2,155	10.3	1.42	3.6	0.87
DE	383,000	1,067	9.9	1.78	4.2	1.25
FL	9,239,000	4,376	10.1	0.94	4.2	0.59
GA	4,102,000	2,311	10.0	1.34	3.8	1.04
HI	493,000	1,408	8.9 *	1.43	3.1 *	0.84
IA	1,309,000	1,303	6.9 *	1.64	3.1	1.13
ID	675,000	1,913	9.6	1.58	3.6	0.79
IL	4,979,000	2,971	9.2 *	1.20	3.9	0.74
IN	2,775,000	1,737	11.6	1.61	4.4	1.09
KS	1,135,000	1,418	11.3	2.02	5.1	1.19
KY	1,842,000	1,350	13.8 *	1.99	4.9	1.38
LA	1,888,000	2,321	14.8 *	1.71	6.5 *	1.03
MA	2,816,000	2,074	8.4 *	1.15	3.4	0.79
MD	2,346,000	1,269	9.2	1.61	3.6	1.01
ME	569,000	1,030	11.4	1.72	5.5 *	1.30
MI	4,121,000	2,364	11.8	1.45	4.7	0.87
MN	2,347,000	1,528	7.0 *	1.37	2.3 *	0.74
MO	2,468,000	1,699	11.5	1.58	5.1	1.03
MS	1,169,000	2,204	15.3 *	1.94	5.9 *	1.32
MT	467,000	2,154	10.4	1.75	4.5	0.99
NC	4,387,000	2,267	12.1	1.62	3.7	0.89
ND	327,000	1,717	7.9 *	1.32	2.5 *	0.66
NE	788,000	1,223	10.5	1.48	4.4	1.14
NH	542,000	1,495	5.7 *	1.26	2.4 *	0.81
NJ	3,391,000	2,098	8.4 *	1.30	3.1 *	0.69
NM	859,000	2,017	13.4 *	2.61	5.3	1.68
NV	1,192,000	1,474	11.9	1.65	4.8	1.18
NY	7,770,000	3,960	10.5	1.11	3.7	0.64
OH	4,792,000	2,903	11.6	1.28	5.0	0.88
OK	1,543,000	1,558	14.6 *	1.86	4.5	1.00
OR	1,732,000	1,830	9.2 *	1.25	3.9	1.03

-continued

Table 4

**Prevalence of household food insecurity and very low food security by State, average 2018–20**  
-continued

State	Number of households		Food insecurity (low or very low food security)		Very low food security	
	Average 2018–20 <sup>1</sup>	Interviewed	Prevalence	Margin of error <sup>3</sup>	Prevalence	Margin of error <sup>2</sup>
	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>Percentage points</i>	<i>Percent</i>	<i>Percentage points</i>
PA	5,130,000	2,798	9.9	1.22	4.2	0.68
RI	429,000	1,006	8.2 *	1.64	2.9 *	1.08
SC	2,133,000	1,661	11.2	1.86	4.4	1.07
SD	357,000	1,268	9.1 *	1.30	3.9	1.01
TN	2,769,000	2,231	12.5 *	1.47	5.3 *	0.98
TX	10,629,000	5,607	13.3 *	0.94	4.9 *	0.63
UT	1,106,000	1,441	10.0	1.55	3.0	1.16
VA	3,438,000	1,986	8.5 *	1.34	3.8	0.87
VT	273,000	1,596	8.6 *	1.34	2.8 *	0.81
WA	3,032,000	2,093	8.8 *	1.24	3.4 *	0.65
WI	2,417,000	1,712	9.7	1.69	3.1 *	0.75
WV	749,000	2,261	15.1 *	2.78	5.7 *	1.38
WY	234,000	1,577	11.5	1.38	4.9	0.94

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

<sup>1</sup>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 0.3 percent of all households in 2018, 0.2 percent in 2019, and 0.2 percent in 2020.

<sup>2</sup>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 Current Population Survey Food Security Supplement.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2018, 2019, and 2020 Current Population Survey Food Security Supplements.

No statistically significant increases in the State-level prevalence of food insecurity occurred from 2015–17 to 2018–20, while food insecurity declined significantly in 17 States (AR, CA, FL, GA, IA, IL, LA, MA, NE, NH, NM, OH, OR, PA, RI, SD, and WA; table 5). During the same period, no statistically significant increases occurred in the prevalence of very low food security, while very low food security declined significantly in 8 States (AL, AZ, CA, MI, MN, NC, OK, and RI).

Across the decade, a statistically significant percentage-point increase in the prevalence of food insecurity occurred from 2008–10 to 2018–20 in one State (LA), with statistically significant declines in 38 States and the District of Columbia (see table 5). The prevalence of very low food security increased significantly from 2008–10 to 2018–20 in one State (LA), with statistically significant declines in 24 States. 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 sample estimates, based on the households that happen to be chosen for the sample, which is consistent with no actual change in food security in the State's general population).

Table 5

**Change in prevalence of household food insecurity and very low food security by State, 2018–20 (average), 2015–17 (average), and 2008–10 (average)<sup>1</sup>**

State	Food insecurity (low or very low food security)					Very low food security				
	Average 2018-20	Average 2015-17	Average 2008-10	Change 2015-17 to 2018-20	Change 2008-10 to 2018-20	Average 2018-20	Average 2015-17	Average 2008-10	Change 2015-17 to 2018-20	Change 2008-10 to 2018-20
	Percent			Percentage points		Percent			Percentage points	
U.S.	10.7	12.3	14.6	-1.6 *	-3.9 *	4.1	4.8	5.6	-0.7 *	-1.5 *
AK	10.6	11.6	13.6	-1.0	-3.0 *	5.1	3.7	4.9	1.4	.2
AL	14.0	16.3	17.3	-2.3	-3.3 *	5.2	7.1	7.0	-1.9 *	-1.8 *
AR	12.6	17.4	18.6	-4.8 *	-6.0 *	5.9	6.5	7.5	-.6	-1.6
AZ	11.0	13.1	15.3	-2.1	-4.3 *	3.8	5.7	5.9	-1.9 *	-2.1 *
CA	9.8	11.2	15.9	-1.4 *	-6.1 *	3.3	4.1	5.8	-.8 *	-2.5 *
CO	10.1	9.2	13.4	.9	-3.3 *	4.3	3.8	5.4	.5	-1.1
CT	11.8	12.2	12.7	-.4	-.9	4.9	4.7	4.8	.2	.1
DC	10.3	11.2	13.0	-.9	-2.7 *	3.6	4.5	4.5	-.9	-.9
DE	9.9	11.1	9.7	-1.2	.2	4.2	3.5	4.0	.7	.2
FL	10.1	11.9	16.1	-1.8 *	-6.0 *	4.2	4.2	6.6	.0	-2.4 *
GA	10.0	13.0	16.9	-3.0 *	-6.9 *	3.8	4.4	6.4	-.6	-2.6 *
HI	8.9	7.4	13.1	1.5	-4.2 *	3.1	2.9	5.0	.2	-1.9 *
IA	6.9	10.5	12.1	-3.6 *	-5.2 *	3.1	4.3	4.9	-1.2	-1.8 *
ID	9.6	11.0	12.4	-1.4	-2.8 *	3.6	4.0	4.6	-.4	-1.0
IL	9.2	11.2	12.9	-2.0 *	-3.7 *	3.9	4.7	4.5	-.8	-.6
IN	11.6	13.6	13.0	-2.0	-1.4	4.4	5.7	5.4	-1.3	-1.0
KS	11.3	13.3	14.5	-2.0	-3.2 *	5.1	5.6	5.0	-.5	.1
KY	13.8	14.7	15.6	-.9	-1.8	4.9	6.1	5.7	-1.2	-.8
LA	14.8	17.3	12.6	-2.5 *	2.2 *	6.5	7.1	4.0	-.6	2.5 *
MA	8.4	10.2	10.8	-1.8 *	-2.4 *	3.4	3.8	4.5	-.4	-1.1
MD	9.2	10.4	12.5	-1.2	-3.3 *	3.6	4.3	5.1	-.7	-1.5 *
ME	11.4	14.4	15.4	-3.0	-4.0 *	5.5	6.4	6.8	-.9	-1.3
MI	11.8	13.6	14.7	-1.8	-2.9 *	4.7	6.0	5.7	-1.3 *	-1.0
MN	7.0	9.5	10.3	-2.5	-3.3 *	2.3	3.7	4.4	-1.4 *	-2.1 *
MO	11.5	12.8	15.8	-1.3	-4.3 *	5.1	4.8	6.6	.3	-1.5 *
MS	15.3	17.2	19.4	-1.9	-4.1 *	5.9	6.6	6.9	-.7	-1.0
MT	10.4	11.4	14.1	-1.0	-3.7 *	4.5	4.6	5.6	-.1	-1.1
NC	12.1	14.4	15.7	-2.3	-3.6 *	3.7	5.6	5.2	-1.9 *	-1.5 *
ND	7.9	9.0	7.1	-1.1	.8	2.5	3.5	2.7	-1.0	-.2
NE	10.5	13.5	12.7	-3.0 *	-2.2	4.4	5.4	5.2	-1.0	-.8
NH	5.7	9.4	9.6	-3.7 *	-3.9 *	2.4	3.4	4.1	-1.0	-1.7 *
NJ	8.4	8.6	12.1	-.2	-3.7 *	3.1	3.0	4.2	.1	-1.1 *
NM	13.4	17.9	15.4	-4.5 *	-2.0	5.3	6.6	5.6	-1.3	-.3
NV	11.9	12.4	14.7	-.5	-2.8 *	4.8	5.1	5.4	-.3	-.6
NY	10.5	10.9	12.9	-.4	-2.4 *	3.7	3.9	5.1	-.2	-1.4 *
OH	11.6	13.7	16.4	-2.1 *	-4.8 *	5.0	6.1	6.6	-1.1	-1.6 *
OK	14.6	15.0	16.4	-.4	-1.8	4.5	6.4	7.5	-1.9 *	-3.0 *

-continued

Table 5

**Change in prevalence of household food insecurity and very low food security by State, 2018–20 (average), 2015–17 (average), and 2008–10 (average)<sup>1</sup> - continued**

State	Food insecurity (low or very low food security)					Very low food security				
	Average 2018-20	Average 2015-17	Average 2008-10	Change 2015-17 to 2018-20	Change 2008-10 to 2018-20	Average 2018-20	Average 2015-17	Average 2008-10	Change 2015-17 to 2018-20	Change 2008-10 to 2018-20
	<i>Percent</i>			<i>Percentage points</i>		<i>Percent</i>			<i>Percentage points</i>	
OR	9.2	12.9	13.7	-3.7 *	-4.5 *	3.9	5.4	6.1	-1.5	-2.2 *
PA	9.9	12.1	12.5	-2.2 *	-2.6 *	4.2	4.0	5.0	.2	-.8
RI	8.2	12.4	14.7	-4.2 *	-6.5 *	2.9	5.6	5.9	-2.7 *	-3.0 *
SC	11.2	11.7	14.8	-.5	-3.6 *	4.4	4.2	5.0	.2	-.6
SD	9.1	11.4	12.3	-2.3 *	-3.2 *	3.9	4.3	5.4	-.4	-1.5 *
TN	12.5	12.9	15.0	-.4	-2.5 *	5.3	5.7	6.0	-.4	-.7
TX	13.3	14.0	18.8	-.7	-5.5 *	4.9	5.8	6.9	-.9	-2.0 *
UT	10.0	10.7	13.0	-.7	-3.0 *	3.0	3.9	4.8	-.9	-1.8 *
VA	8.5	10.1	9.6	-1.6	-1.1	3.8	4.4	3.3	-.6	.5
VT	8.6	9.8	13.8	-1.2	-5.2 *	2.8	3.6	6.1	-.8	-3.3 *
WA	8.8	10.8	14.7	-2.0 *	-5.9 *	3.4	4.1	6.1	-.7	-2.7 *
WI	9.7	10.0	11.8	-.3	-2.1 *	3.1	3.8	4.3	-.7	-1.2 *
WV	15.1	14.9	14.1	.2	1.0	5.7	6.2	5.3	-.5	.4
WY	11.5	13.2	11.6	-1.7	-.1	4.9	5.1	4.3	-.2	.6

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

<sup>1</sup>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, Bureau of the Census, Current Population Survey Food Security Supplements.

# Household Spending on Food

Food insecurity arises from a lack of money and other resources to acquire food. Most households purchase much of their food from supermarkets or grocery stores; some food also comes from cafeterias, restaurants, or vending machines. Families with children may also get food from schools and childcare. The amount of money a household spends on food thus is one indicator for how adequately the household is meeting its food needs.<sup>29</sup> When a household reduces food spending below a minimum level, such as USDA’s Thrifty Food Plan, because of constrained resources, disrupted eating patterns and reduced food intake may result. This section provides information on how much households spent on food, as reported in the December 2020 Food Security Supplement.

## Methods

The household food expenditure statistics in this report are based on usual weekly spending for food, as reported by respondents after reflecting on the household’s actual food spending during the previous week. Respondents were first asked to report the amounts of money their households spent on food in the week before the interview, including purchases made with Supplemental Nutrition Assistance Program (SNAP) benefits 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, and
- “...Any other kind of place.”<sup>30</sup>

Total spending for food, based on responses to this series of questions, was verified with the respondent. The respondent was then asked how much the household usually spent on food during a week.<sup>31</sup> USDA, Economic Research Service analyses showed 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).

Usual food spending was adjusted for household size and composition in two ways. First, researchers divided each household’s usual weekly food expenditure by the number of household members, yielding the “usual

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<sup>29</sup>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 childcare and for the elderly, and private charitable organizations. Purchases with SNAP benefits, however, are counted as food spending in the Current Population Survey Food Security Supplement. Food spending in 2020 likely included Pandemic Electronic Benefit Transfer (P-EBT) even though it was not specifically mentioned because it was delivered similarly to regular SNAP benefits. 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 also understates food consumption in geographical areas with relatively low food prices and overstates consumption in areas with relatively high food prices.

<sup>30</sup>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 subtracted from total spending at each of these stores to arrive at spending for food. Respondents were not specifically asked about online food purchases. Overall spending for online food purchases likely increased in 2020 related to the pandemic, including an increase in SNAP benefits redeemed online (Jones, 2021).

<sup>31</sup>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. Bureau of the Census. Economic Research Service analysis suggests this change has little effect on the estimates of median food spending reported in the annual food security reports. The tables presented in this section are based on the categorical food-spending data and are comparable to the 2016 and later estimates but are not precisely comparable with earlier estimates. Changes in food spending from 2019 described in the text are based on comparable estimates of 2019 categorical food-spending data published in Coleman-Jensen et al. (2020).

weekly food spending per person” for that household. The second adjustment more precisely accounts 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 2020.<sup>32</sup> USDA’s Thrifty Food Plan (TFP) 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).<sup>33</sup> Each household’s reported usual weekly food spending was divided by the household-specific cost of the TFP, based on the age- and gender-specific cost of the TFP for each household member and the number of persons in the household (U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 2021).<sup>34</sup>

The medians of each of the two food-spending measures (spending per person per week and total spending relative to the cost of the December 2020 TFP) were estimated at the national level and for households in various categories. 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 or data-entry errors. Thus, the median better reflects what a typical household spent.

About 6.7 percent of households interviewed in the CPS Food Security Supplement 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 smaller than in tables 1 and 2. Food-spending estimates may not be fully representative of all households in the United States.<sup>35</sup>

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<sup>32</sup>The cost of the Thrifty Food Plan (TFP) is revised each month to account for inflation in food prices. In December 2020, the weekly cost of the TFP for a family of 4 (2 adults age 19-50 and 2 children age 6-8 and 9-11) was \$154.90 (compared with \$149.30 in December 2019). For this report, TFP costs are estimated by the Economic Research Service separately for Alaska and Hawaii, using adjustment factors calculated from USDA’s TFP costs for those States for the second half of 2020. USDA’s TFP costs for Alaska and Hawaii are available on USDA’s Center for Nutrition Policy and Promotion website.

<sup>33</sup>The TFP, in addition to its use as a research tool, is used as a basis for setting the maximum SNAP benefit amounts (U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 2007).

<sup>34</sup>The cost of a TFP for a household is calculated under the assumption that all food purchased by household members is shared.

<sup>35</sup>Households that were unable or unwilling to report food spending were less likely to be food insecure than those that did report food spending (6.3 percent compared with 10.9 percent). Food spending may, therefore, be slightly underestimated from these data.

Table 6

**Weekly household food spending per person and relative to the household cost of the Thrifty Food Plan (TFP), 2020**

Category	Number of households <sup>1</sup>	Per person	Relative to household cost of December 2020 TFP
	<i>1,000</i>	<i>Dollars</i>	<i>Ratio</i>
All households	120,734	57.50	1.31
Household composition			
With children < 18 years	35,763	46.00	1.20
At least one child < 6 years	15,218	40.00	1.20
Married-couple families	23,043	47.50	1.23
Female head, no spouse	9,223	42.86	1.13
Male head, no spouse	3,107	45.00	1.17
Other household with child <sup>2</sup>	391	43.33	1.11
With no children < 18 years	84,971	65.00	1.42
More than one adult	50,383	60.00	1.30
Women living alone	18,899	70.00	1.49
Men living alone	15,689	80.00	1.65
With elderly	36,933	55.00	1.23
Elderly living alone	13,714	60.00	1.30
Race/ethnicity of household reference persons			
White, non-Hispanic	79,476	60.00	1.38
Black, non-Hispanic	15,265	50.00	1.19
Hispanic <sup>3</sup>	17,042	50.00	1.23
Other, non-Hispanic	8,951	55.00	1.28
Household income-to-poverty ratio			
Under 1.00	9,801	50.00	1.09
Under 1.30	15,505	50.00	1.09
Under 1.85	24,134	50.00	1.11
1.85 and over	67,925	62.50	1.48
Income unknown	28,675	50.00	1.25
Area of residence <sup>4</sup>			
Inside metropolitan area	103,627	60.00	1.36
In principal cities <sup>5</sup>	35,594	60.00	1.42
Not in principal cities	52,112	60.00	1.37
Outside metropolitan area	17,107	50.00	1.15
Census geographic region			
Northeast	20,497	60.00	1.43
Midwest	25,748	50.00	1.27

-continued

Table 6

**Weekly household food spending per person and relative to the household cost of the Thrifty Food Plan (TFP), 2020—continued**

Category	Number of households <sup>1</sup>	Per person	Relative to household cost of December 2020 TFP
	<i>1,000</i>	<i>Dollars</i>	<i>Ratio</i>
South	46,953	55.00	1.29
West	27,537	60.00	1.37

<sup>1</sup>Totals exclude households that did not answer the questions about spending on food or reported zero usual food spending. These exclusions represented 7.7 percent of all households.

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

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

<sup>4</sup>Metropolitan area residence is based on 2013 Office of Management and Budget delineation.

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

Note: These estimates are based on categorical food spending data rather than on continuous data that were used in 2014 and earlier years. Beginning with the 2015 Current Population Survey Food Security Supplement, food spending amounts are categorized in public-use data.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

## Food Expenditures by Selected Household Characteristics

In 2020, the typical U.S. household spent \$57.50 per person weekly for food (table 6). Median household food spending relative to the cost of the TFP—which adjusts for food price inflation and adjusts more precisely for the food needs of persons in different age-gender categories—was 1.31, up significantly from 1.28 in 2019 (Coleman-Jensen et al., 2020; a ratio of household food spending relative to the TFP that is above 1.0 indicates the household spends more than the cost of the TFP, a ratio below 1.0 means the household spends less than the cost of the TFP). That is, in 2020, the typical household spent 31 percent more on food than the cost of the TFP for that household.

Households with children under age 18 generally spent less for food, relative to the household cost of the TFP, than those without children. The typical household with children spent 20 percent more than the cost of the TFP on food, while the typical household with no children spent 42 percent more. Median household food expenditures relative to the cost of the TFP were lower for households with children headed by single women (ratio of 1.13) than for married couples with children (ratio of 1.23). Median food expenditures relative to the cost of the TFP were highest for men living alone (ratio of 1.65).

Median food expenditures relative to the cost of the TFP were lower for households with Black non-Hispanic (ratio of 1.19) and Hispanic reference persons (ratio of 1.23) than for households with a White non-Hispanic reference person (ratio of 1.38). This pattern is consistent with the lower average incomes and higher prevalence rates of food insecurity for these racial and ethnic groups.

As expected, households with higher incomes spent more money on food than did lower income households.<sup>36</sup> The typical household with income below the poverty line spent about 9 percent more than the cost

<sup>36</sup>However, food spending does not rise proportionately with income, so high-income households spend a smaller proportion of their income on food than low-income households.



of the TFP, while the typical household with income at or above 185 percent of the poverty line spent 48 percent more than the cost of the TFP.

Median food spending relative to the cost of the TFP was lower for households in nonmetropolitan areas (ratio of 1.15) than for those inside metropolitan statistical areas (ratio of 1.36). Regionally, median spending on food relative to the cost of the TFP was lowest in the Midwest (ratio of 1.27) and highest in the West (ratio of 1.37) and Northeast (ratio of 1.43).

## Food Expenditures and Household Food Security

Food-secure households typically spent more on food than did food-insecure households. The ratio for median food spending relative to the cost of the TFP was 1.35 among food-secure households in 2020, compared with 1.14 among food-insecure households (table 7). Thus, taking into account estimated food need, the median food-secure household spent 18 percent more for food than the median food-insecure household (estimated as  $1.35/1.14=1.18$ ).<sup>37</sup> Statistical Supplement table S-10 provides more information on food spending by food-secure and food-insecure households by household characteristics (Coleman-Jensen et al., 2021).

Table 7

### Weekly household food spending per person and relative to the cost of the Thrifty Food Plan (TFP) by food security status, 2020

Category	Number of households <sup>1</sup>	Median weekly food spending	
		Per person	Relative to cost of December 2020 TFP
	<i>1,000</i>	<i>Dollars</i>	<i>Ratio</i>
All households	120,734	57.50	1.31
Food security status			
Food-secure households	107,475	60.00	1.35
Food-insecure households	13,128	50.00	1.14
Households with low food security	8,223	50.00	1.15
Households with very low food security	4,905	50.00	1.09

<sup>1</sup>Total for all households excludes households that did not answer the questions about spending on food or reported zero usual spending for food. These exclusions represented 7.7 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.

Note: These estimates are based on categorical food spending data rather than on continuous data that was used in 2014 and earlier years. Beginning with the 2015 Current Population Survey Food Security Supplement, food spending amounts are categorized in public-use data.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

<sup>37</sup>The pattern of higher food spending among food-secure households compared with food-insecure households was also found in USDA's National Food Acquisition and Purchase Survey (FoodAPS) data (Tiehen et al., 2017).

# Federal Nutrition Assistance Programs and Food Security

Households with limited resources use a variety of methods to help meet their food needs. Some participate in Federal food and nutrition assistance programs or obtain food from emergency 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 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 the use of food and nutrition assistance programs also provides insight into how low-income households cope with difficulties in acquiring adequate food.

This section presents information about the food security status of low-income households that participated in the three largest Federal nutrition assistance programs: SNAP, free or reduced-price school lunch from the National School Lunch Program, and WIC (see box, "Federal Nutrition Assistance Programs," p. 37). It also provides information about the extent to which food-insecure households participated in these programs. This report does not describe total participation in the Federal food and nutrition assistance programs, participation rates of eligible households in those programs, and characteristics of participants in the programs. Extensive information on those topics is available from USDA's Food and Nutrition Service (FNS).<sup>38</sup> The USDA implemented additional nutrition assistance programs in 2020 in response to the pandemic, such as Pandemic-EBT and the Farmers to Families Food Box Program; participation in these programs was not included in the CPS-FSS and are not reported here.<sup>39</sup>

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 (Coleman-Jensen et al., 2021).

## Methods

The December 2020 CPS Food Security Supplement included questions about the use of Federal nutrition assistance programs. All households with reported annual incomes below 185 percent of the Federal poverty threshold were asked these questions. To minimize respondent burden, 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 two preliminary screener questions asked of all households (listed in footnote 9).

The questions analyzed in this section regarding SNAP participation are:

- During the past 12 months, since December of last year, did anyone in this household get SNAP or food stamp benefits?<sup>40</sup>

Households that responded affirmatively were then asked:

- In which months of 2020 were SNAP or food stamp benefits received?

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<sup>38</sup>Additional research findings on the operation and effectiveness of these programs are available from the Economic Research Service website.

<sup>39</sup>For the most updated information on these programs see the USDA and Food and Nutrition Service websites, and Toossi, et al., (2021).

<sup>40</sup>The Food Stamp Program was renamed the Supplemental Nutrition Assistance Program (SNAP) in October 2008. The survey mentions both names in the question, as well as the State's name for the program in States that used a different name.

Households that reported participation in November, but not December, were then asked:

- On what date in November did your household receive SNAP or food stamp benefits?

Information from the 3 questions was used to identify the number of months of receipt of SNAP in the prior year as well as whether households received SNAP benefits in the 30 days before the survey (mid-November to mid-December 2020).<sup>41</sup>

Questions about the National School Lunch Program and WIC are also analyzed here. These questions are:

- During the past 30 days, did any children in the household (between 5 and 18 years old) receive free or reduced-price lunches at school? (Only households with children between the ages of 5 and 18 were asked this question.)<sup>42</sup>
- 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 nutrition assistance program and for comparison groups of nonparticipating households with incomes and household compositions similar to those of nutrition assistance program participants. Statistics for participating households excluded households with annual incomes above the ranges specified for the comparison groups.<sup>43</sup> An income cutoff of less than 130 percent of the Federal poverty line includes most SNAP participants (USDA, FNS, 2021). The income ranges for free or reduced-price school lunch and WIC are set at 185 percent of poverty to match the income eligibility limits for those programs. The proportions of food-insecure households participating in each of the largest Federal 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.

## Food Security of Households That Received Nutrition Assistance

The relationship between food security and the use of food and nutrition assistance programs is complex. 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 they were before. On the other hand, the more food-insecure households—those having greater difficulty meeting their food needs—seek assistance from the programs. Numerous studies confirm this self-selection into nutrition assistance programs and that, when adequately controlled for, it becomes apparent that SNAP improves food security.<sup>44</sup> In 2020, an estimated 45.4 percent of households that received SNAP benefits were food insecure, as were 36.7 percent of households that received free or reduced-price school lunches and 38.3 percent of those that received WIC benefits

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<sup>41</sup>The Current Population Survey household does not always match the SNAP unit. In some households, only some members are eligible for SNAP (Czajka et al., 2012; Scherpf et al., 2015).

<sup>42</sup>Because of the pandemic and school closures children may have received free school meals through school grab n' go meal pick up sites but due to social distancing requirements, the meals were consumed elsewhere. It is unclear how respondents may have interpreted this question in 2020 if free or reduced-price lunches were not received by children "at school."

<sup>43</sup>Some program participants reported annual incomes 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.

<sup>44</sup>This "self-selection" effect is evident in the association between food security and nutrition assistance program participation observed in the food security survey. Participating households were less food secure than similar nonparticipating households. Research that uses 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 Gundersen, et al., 2017; 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; Nelson et al., 1998). Overall, these studies find that SNAP improves food security.

(table 8). In 2020, food insecurity among income-eligible households with children that did not receive free or reduced-price school lunch was higher than in 2019 (33.0 percent in 2020 versus 21.0 percent in 2019; Coleman-Jensen et al., 2020).

The prevalence of very low food security among households participating in SNAP was double that of nonparticipating households in the same low-income range (18.7 percent versus 9.2 percent). However, for households that received free or reduced-price school lunches, the prevalence of very low food security was near that of nonparticipating households with school-age children in the same income range (9.2 percent versus 9.6 percent). This finding for free or reduced-price school meals is different from 2019 when very low food security was more prevalent among participants than non-participants and may be related to changes in the delivery of school meals and changes to participation in 2020. The survey question specifically asks about meals received “at school,” and reported participation was lower in 2020. Respondents may not have considered meals received from non-school locations or taken home for consumption. Very low food security was also nearly equivalent among WIC recipient households (6.8 percent) and income eligible non-WIC households (6.4 percent).

Table 8  
**Percentage of households by food security status and participation in selected Federal nutrition assistance programs, 2020**

Category	Food secure	Food insecure		
		All	With low food security	With very low food security
<i>Percent</i>				
<b>Income less than 130 percent of poverty line</b>				
Received SNAP <sup>1</sup> benefits previous 12 months	54.6	45.4	26.7	18.7
Received SNAP benefits all 12 months	56.8	43.2	25.8	17.4
Received SNAP benefits 1 to 11 months	50.4	49.6	28.6	21.0
Did not receive SNAP benefits previous 12 months	75.2	24.8	15.6	9.2
<b>Income less than 185 percent of poverty line; school-age children in household</b>				
Received NSLP <sup>2</sup> free or reduced-price school lunch previous 30 days	63.3	36.7	27.5	9.2
Did not receive NSLP free or reduced-price school lunch previous 30 days	67.0	33.0	23.4	9.6
<b>Income less than 185 percent of poverty line; children under age 5 in household</b>				
Received WIC <sup>3</sup> previous 30 days	61.7	38.3	31.5	6.8
Did not receive WIC previous 30 days	70.7	29.3	22.9	6.4

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

<sup>2</sup>NSLP = National School Lunch Program.

<sup>3</sup>WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

A possible complicating factor in interpreting table 8 for school lunch and WIC participation is that food insecurity was measured over 12 months, while program participation is measured over 30 days. An episode of food insecurity may have occurred at a different time during the year than the use of a specific 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 nutrition assistance programs both are referenced to the previous 30 days. That tabulation shows patterns of food insecurity and the use of nutrition assistance programs that are similar to those using the 12-month food insecurity measure in table

## Federal 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:

- The Supplemental Nutrition Assistance Program (SNAP), formerly the Food Stamp 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. In an average month of fiscal year 2020 (October 1, 2019, through September 30, 2020), SNAP provided benefits to 39.9 million people in the United States (about 12 percent of individuals). The average benefit was about \$155 per person per month, and Federal expenditures for the program were \$79.2 billion that year.
- The National School Lunch Program (NSLP) operates in more than 97,000 public and nonprofit private schools and residential childcare institutions. All children attending participating schools are eligible to receive lunch, with lunches available to low-income children at free or reduced-price. Schools are reimbursed by USDA for all meals served under the program on a sliding scale based on whether meals are free, reduced-price or full price. Before the COVID-19 pandemic typical school lunch participation was nearly 30 million children on an average school day. In fiscal year 2020, the program provided lunches to an average of 22.6 million children each school day. Starting in March 2020, schools that shut down because of the pandemic were able to serve meals either under the NSLP's Seamless Summer Option or under the Summer Food Service Program to facilitate the operation of safe meal pick-up sites for families. Participation in meals served at schools and other sites operating under the Summer Food Service Program is reported separately and not reflected in the 22.6 million.
- The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) 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 non-breastfeeding postpartum women; for infants in low-income families; and for children younger than age 5 in low-income families 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 2020, WIC served over 6.2 million participants per month at an average monthly cost for food (after rebates to WIC from manufacturers) of about \$38 per person.

### Nutrition Assistance and the COVID-19 Pandemic

The effects of the coronavirus (COVID-19) pandemic on the availability and structure of nutrition assistance programs and resulting participation is discussed at length in the Economic Research Service report "The Food and Nutrition Assistance Landscape: Fiscal Year 2020 Annual Report" (Toossi, et al., 2021). As summarized in that report:

In response to the coronavirus (COVID-19) pandemic, USDA launched two new programs in 2020: Pandemic Electronic Benefit Transfer (P-EBT) and the Farmers to Families Food Box Program (Food Box Program). P-EBT reimbursed qualifying households for the value of school meals forgone due to COVID-19 related disruptions to in-person learning at school. Through the Food Box Program, USDA purchased food products from American producers and donated them to food banks and other charitable organizations for distribution to households in need. Additionally, USDA implemented numerous policy changes that expanded the scope and coverage of existing programs. Together, these initiatives contributed to an increase in total expenditures on food and nutrition assistance programs, which amounted to a new historical inflation-adjusted high of \$122.1 billion.

Detailed information on special program provisions during the COVID-19 pandemic is available on the USDA, Food and Nutrition Service website. The Farmers to Families Food Box Program ended on May 31, 2021.

(FNS Program data on SNAP, the National School Lunch Program, and WIC accessed from FNS website on May 2, 2021; for more information, see Toossi et al., 2021.)

8, although 30-day food insecurity prevalence rates were lower than the corresponding 12-month rates (see Statistical Supplement table S-15, Coleman-Jensen et al., 2021).

## Participation in Federal Nutrition Assistance Programs by Food Insecure Households

About 55 percent of food-insecure households reported receiving assistance from one or more of the three largest Federal nutrition assistance programs during the month before the December 2020 food security survey (table 9). SNAP helped 41.6 percent of food-insecure households. Children in 19.5 percent of food-insecure households received free or reduced-price school lunches. Women or children in 8.4 percent of food-insecure households received WIC food vouchers.<sup>45</sup> An estimated 50.6 percent of households classified as having very low food security reported participating in one or more of the 3 largest Federal nutrition assistance programs, with the largest share (42.5 percent) participating in SNAP.<sup>46</sup>

Participation in the 3 largest nutrition assistance programs (SNAP, free or reduced-price school meals, and WIC) by food-insecure households was somewhat lower in 2020 than in 2019 (54.6 percent versus 58.3 percent). The largest difference in participation was in free or reduced-price school lunch. In 2019, 27.6 percent of food-insecure households reported receipt of free or reduced-price school lunches. The lower reported participation among food-insecure households in 2020 (19.5 percent) may be because of school closures in 2020. With schools closed, USDA granted waivers allowing schools and community organizations to serve meals outside of the typical cafeteria setting, through mechanisms such as “grab’n’go” distribution, either through the National School Lunch Program or the Summer Food Service Program. It is possible that respondents did not report receipt of free or reduced-price meals delivered in these nontraditional formats, since the question asks about meals received “at school.” Respondents may also have received Pandemic Electronic Benefit Transfer (P-EBT) in lieu of school meals. The lower reported participation of food-insecure households in free or reduced-price school meals is consistent with USDA participation data showing a 16.8 percent decline in meals served from fiscal year 2019 to 2020 (Toossi et al., 2021 and FNS Program data on FNS website).

Participation of food-insecure households in SNAP was slightly lower in 2020 than in 2019 (41.6 percent versus 43.2 percent). Participation in SNAP by food-insecure households in 2020 as shown in table 9, reflect only the percentage of food-insecure households participating, and may not match trends in participation for all households. Overall, SNAP participation increased from fiscal year 2019 to 2020 (Toossi et al., 2021 and FNS Program data on FNS website).

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<sup>45</sup>These statistics may be biased downward. By comparing household survey data and administrative records, it is documented 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; Meyer et al., 2015; Meyer and Mittag, 2019). 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 these households were eligible for certain programs. (For example, many households without pregnant women or children and with incomes above program cut offs would not have been eligible for any of the programs.)

<sup>46</sup>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 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 2020, an estimated 52.4 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 before the survey, 48.8 percent participated in SNAP, free or reduced-price school lunch, or WIC during that same time.



Table 9

**Participation of food-insecure households in selected Federal nutrition assistance programs, 2020**

Program	Share of food-insecure households that participated in the program during the previous 30 days <sup>1, 2</sup>	Share of households with very low food security that participated in the program during the previous 30 days <sup>1, 2</sup>
	<i>Percent</i>	
SNAP <sup>3</sup>	41.6	42.5
NSLP <sup>4</sup> Free or reduced-price school lunch	19.5	12.9
WIC <sup>5</sup>	8.4	4.2
Any of the three programs	54.6	50.6
None of the three programs	45.4	49.4

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

<sup>2</sup>These statistics understate the extent of nutrition assistance program participation because program participation is underreported by household survey respondents; see footnote 45.

<sup>3</sup>SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.

<sup>4</sup>NSLP = National School Lunch Program.

<sup>5</sup>WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.



# Special Section: Labor Force Characteristics Resulting from the Coronavirus (COVID-19) Pandemic and Food Insecurity

Beginning in May 2020, the U.S. Bureau of Labor Statistics and U.S. Bureau of the Census added a series of supplemental questions related to the coronavirus (COVID-19) pandemic to the monthly Current Population Survey. Four of these questions continued in the monthly CPS through December 2020 and can therefore be linked with respondents' household food security status from the December 2020 Food Security Supplement. These four questions relate to how the pandemic may have influenced labor force characteristics, including telework, lost work, and looking for work.

## Methods

Food insecurity is measured as described in the main methods section beginning on page 2. However, statistics in this section reflect food insecurity over a 30-day period rather than a 12-month period. Both food insecurity and the COVID-19 labor force questions reference the 30 days before the survey, from mid-November to mid-December 2020. For an explanation of the 30-day food security measure and statistics on 30-day food insecurity by household characteristics, see Table S-4 and “Food Security During the 30 Days Prior to the Food Security Survey” in Coleman-Jensen et al. (2021).

The COVID-19 labor force questions include an introduction that is read to the respondent, followed by these yes/no questions:

“I now have a few questions related to work activities affected by the Coronavirus-COVID-19 pandemic. Efforts to contain the coronavirus have included business and school closures, social distancing, and other disruptions. The following questions refer to the last 4 weeks. By the last 4 weeks I mean the 4-week period ending last Saturday.”

- At any time in the last 4 weeks, did you telework or work at home for pay because of the coronavirus pandemic? (Yes/No; If the respondent worked entirely from home before the coronavirus pandemic, interviewers are instructed to enter “No” to this item.)
- At any time in the last 4 weeks, were you unable to work because your employer closed or lost business due to the coronavirus? (Yes/No; Interviewers are instructed to enter “Yes” for the self-employed who lost work or customers because of the coronavirus pandemic.)

Households that responded yes were then asked:

- Did you receive any pay from your employer for the hours you did not work in last 4 weeks? (Yes/No; Interviewers are instructed to enter “No” if self-employed and received no pay from customers.)
- Did the coronavirus pandemic prevent you from looking for work in the last 4 weeks? (Yes/No)

The COVID-19 labor force questions reference the last 4 weeks and are asked of civilian household members age 16 and up. The first item about telework is only asked for those who are employed. The fourth item about being prevented from looking for work is only asked of those who are not in the labor force.

The statistics presented below are based on responses of the household reference person to the COVID-19 labor force questions. In some households, other adult members may have effects of the COVID-19

pandemic on labor force characteristics, and those effects are not included here.<sup>47</sup> Basing these labor force characteristics on those of the household reference person is consistent with basing race/ethnicity on the household reference person as shown in table 2 and elsewhere. The household reference person is the person in whose name the household unit is owned or rented. If the housing unit is owned or rented jointly by a married couple, the reference person may be either spouse.

Statistics in this section were calculated by applying the Food Security Supplement weights to responses by the surveyed households, so the statistics are nationally representative. Statistical differences described are significant at the 90-percent confidence level. Standard errors of estimates were calculated using balanced repeated replication (BRR) methods based on replicate weights computed for the CPS Food Security Supplement by the U.S. Bureau of the Census.

## Prevalence of Food Insecurity by Labor Force Characteristics Resulting From the Coronavirus (COVID-19) Pandemic

In 2020, 5.7 percent of all U.S. households were food insecure in the 30-day period from mid-November to mid-December (the top row of table 10 is repeated in table S-4 in Coleman-Jensen et al., 2021). During that same 30-day period households with an employed reference person had a lower food insecurity prevalence (4.2 percent) than the national average (table 10). Households with a reference person who was able to telework because of the pandemic had a lower prevalence of food insecurity (2.2 percent) than the national average, as did employed reference persons who were unable to telework because of the pandemic or worked entirely from home before the pandemic (5 percent). The prevalence of 30-day food insecurity among households with a reference person who was not employed (8 percent) was higher than the national average.

Among households with reference persons who reported being unable to work because their employer closed or lost business because of the pandemic, 16.4 percent were food insecure in mid-November to mid-December 2020. That food insecurity prevalence was substantially higher than the national average and significantly higher than for those who did not report being unable to work because of the pandemic. Restrepo et al. (2021) found that households with respondents who lost their jobs because of pandemic-induced firm closures spent less on food, were less likely to have enough food to eat, and were less likely to report confidence in their ability to afford food in the future than households with an employed respondent between April and June 2020. The prevalence of 30-day food insecurity was higher for households with reference persons who were unable to work because of the pandemic and did not receive pay from their employer for the missed work (17.5 percent).

Among households with reference persons who were not in the labor force and the pandemic prevented them from looking for work, 20.4 percent were food insecure from mid-November to mid-December 2020. Those who were out of the labor force but were not prevented from looking for work because of the pandemic had a lower prevalence of 30-day food insecurity, at 6.3 percent, but that prevalence was higher than the national average of 5.7 percent.

The patterns of findings for 30-day very low food security were similar. Very low food security was lower than the national average for households with reference persons who were employed (including those that teleworked because of the pandemic and those who did not), those who did not report being unable to work because of the pandemic, and those who were in the labor force.

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<sup>47</sup>In analyses not shown, results were replicated examining COVID-19 labor force characteristics of all adults in the household. The substantive findings of those analyses are the same as those for the household reference person and are not shown separately.

Very low food security was higher than the mid-November to mid-December national average of 2.3 percent for households with reference persons who were not employed (3.6 percent), those who were unable to work and received pay from their employer for missed work (4.7 percent), those who were unable to work and did not receive pay from their employer for missed work (7.3 percent), those who were not in the labor force and were prevented from looking for work by the pandemic (9.8 percent) and those who were not in the labor force, but not prevented from looking for work by the pandemic (2.7 percent).

Table 10

**Households by food security status and effects of the coronavirus (COVID-19) pandemic on household reference person's work activities during the 30 days before the food security survey, 2020<sup>1</sup>**

Category	Total <sup>1</sup>	Food insecure								
		Food secure			All		With low food security		With very low food security	
		1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All households	130,459	122,971	94.3	7,488	5.7	4,465	3.4	3,023	2.3	
Telework because of pandemic										
All employed	76,867	73,643	95.8	3,224	4.2	2,103	2.7	1,121	1.5	
Yes, able to telework because of pandemic	22,390	21,908	97.8	482	2.2	313	1.4	169	0.8	
No, not able to telework or worked entirely at home before pandemic	54,477	51,735	95.0	2,742	5.0	1,790	3.3	952	1.7	
Not employed (unemployed or not in labor force)	53,032	48,771	92.0	4,261	8.0	2,360	4.4	1,901	3.6	
Unable to work because of pandemic										
Yes	8,267	6,909	83.6	1,358	16.4	787	9.5	571	6.9	
Yes, and yes, received pay for hours not worked	1,196	1,075	89.9	121	10.1	65	5.4	56	4.7	
Yes, but no, did NOT receive pay for hours not worked	7,071	5,833	82.5	1,238	17.5	723	10.2	515	7.3	
No	121,618	115,491	95.0	6,127	5.0	3,676	3.0	2,451	2.0	
Pandemic prevented looking for work										
Yes	2,132	1,697	79.6	435	20.4	226	10.6	209	9.8	
No	45,906	43,030	93.7	2,876	6.3	1,637	3.6	1,239	2.7	
In labor force	81,861	77,687	94.9	4,174	5.1	2,600	3.2	1,574	1.9	

<sup>1</sup>The 30-day prevalence rates refer to the 30-day period from mid-November to mid-December; the survey was conducted during the week of December 13-19, 2020. Totals exclude households for which food security status is unknown because they did not give a valid response to any of the questions in the 30-day food security scale (0.2 percent of all households) and those for which the impact of the COVID-19 pandemic on work activities was unknown because they did not give a valid response to the COVID-19 questions or were Armed Forces members not eligible for the COVID-19 questions (0.4 percent of all households). The 30-day statistics for 2004 and earlier years were based on a different methodology and are not comparable with these statistics. The household reference person is the person in whose name the household unit is owned or rented. If the housing unit is owned or rented jointly by a married couple, the reference person may be either spouse.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2020 Current Population Survey Food Security Supplement.

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