

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 based on the December 2007 food security survey—the 13th annual survey in the Nation’s food security monitoring system.

Methods

The statistics presented in this report are based on data collected in a special supplement to the Current Population Survey (CPS) conducted in December 2007. The CPS includes about 54,000 households² and is representative, at State and national levels, of the civilian, noninstitutionalized population of the United States. About 45,600 households completed the food security supplement in December 2007; the remainder were unable or unwilling to do so. Weighting factors were calculated by the U.S. Census Bureau so that, when properly weighted, responses to the food security questions are representative at State and national levels.³ Food security estimates were based on a subsample of about 34,000 households and weighting factors were adjusted by ERS so that the subsample remained nationally representative.⁴ All food security statistics in this report were calculated by applying the adjusted food security supplement weights to responses of the surveyed households to obtain nationally representative prevalence estimates. Statistics on food spending and use of food and nutrition assistance programs that are not cross-tabulated with food security status are based on the full supplement sample and the unadjusted supplement weights.

The household food security statistics presented in this report are based on a measure of food security calculated from responses to a series of questions about conditions and behaviors known to characterize households having difficulty meeting basic food needs.⁵ Each question asks whether the condition or behavior occurred at any time during the previous 12 months and specifies a lack of money or other resources to obtain food as the reason. Voluntary fasting or dieting to lose weight are thereby excluded from the measure. The series includes 10 questions about food conditions of the household as a whole and of adults in the household and, if there are children present in the household, an additional 8 questions about their food conditions (see box, “Questions Used to Assess the Food Security of Households in the CPS Food Security Survey,” page 3). Responses to the 18 food security questions are reported in appendix A.

The food security status of each interviewed household is determined by the number of food-insecure conditions and behaviors the household reports. Households are classified as *food secure* if they report no food-insecure conditions or if they report only one or two food-insecure conditions. (Food-insecure conditions are indicated by responses of “often” or “sometimes” to questions 1-3 and 11-13, “almost every month” or “some months but not every month” to questions 5, 10, and 17, and “yes” to the other questions.) They are classified as *food insecure* if they report three or more food-insecure conditions.⁶

²The size of the CPS sample was increased in 2001; it had been around 50,000 households during the 1990s.

³Reweightings of the supplement takes into consideration income and other information about households that completed the labor-force portion of the survey but not the Food Security Supplement. This corrects, to some extent, biases that could result from nonresponse to the supplement by households that completed only the labor-force part of the survey.

⁴Food security measurement of about one-quarter of the households in the 2007 food security survey was not directly comparable with that of the rest of the surveyed households. These households were excluded from the analysis sample because they were asked a test question (proposed as an improved wording of one of the food security measurement questions) that did not function as expected. The analysis sample was reweighted to remain representative of the population.

⁵The methods used to measure the extent and severity of food insecurity have been described in several places (Hamilton et al., 1997a, 1997b; Andrews et al., 1998; Bickel et al., 1998; Carlson et al., 1999; Bickel et al., 2000; Nord and Bickel, 2002). See also the recent 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 in appendix B.

⁶To reduce the burden on higher income respondents, households with incomes above 185 percent of the Federal poverty line who give no indication of food-access problems on either of two preliminary screening questions are deemed to be food secure and are not asked the questions in the food security assessment series. The preliminary screening questions are as follows:

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

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

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

(Questions 11-18 were asked only if the household included children age 0-18)

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)

Food-insecure households are further classified as having either *low food security* or *very low food security*.⁷ The very low food security category identifies households in which food intake of one or more members was reduced and eating patterns disrupted because of insufficient money and other resources for food. Households without children are classified as having *very low food security* if they report six or more food-insecure conditions. Households with children are classified as having *very low food security* if they report eight or more food-insecure conditions, including conditions among both adults and children. Households with children are further classified as having *very low food security among children* if they report 5 or more food-insecure conditions among the children (that is, if they respond affirmatively to 5 or more of questions 11-18).

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

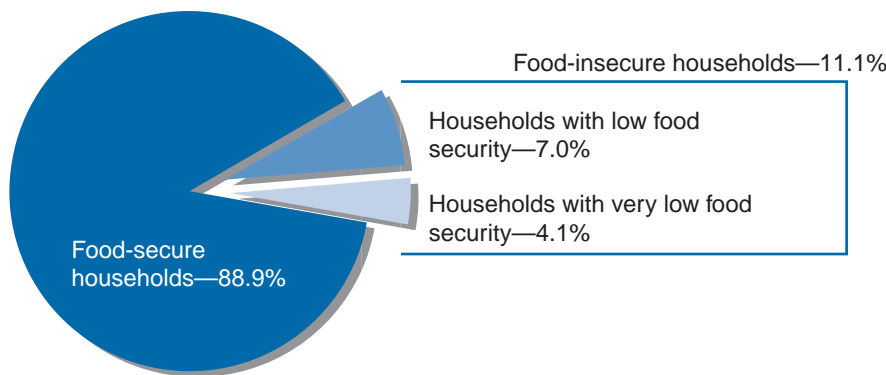
Prevalence of Food Insecurity— National Conditions and Trends

About 89 percent of U.S. households were food secure throughout the entire year 2007 (fig. 1, table 1A). “Food secure” means that all household members had access at all times to enough food for an active, healthy life.⁸ The remaining 13 million U.S. households (11.1 percent of all households) were food insecure at some time during the year. That is, they were, at times, uncertain of having, or unable to acquire, enough food for all household members because they had insufficient money and other resources for food. About two-thirds of food-insecure households avoided substantial reductions or disruptions in food intake, in many cases by relying on a few basic foods and reducing variety in their diets. But 4.7 million households (4.1 percent

⁷Prior to 2006, households with low food security were described as “food insecure without hunger” and households with very low food security were described as “food insecure with hunger.” Changes in these descriptions were made in 2006 at the recommendation of the Committee on National Statistics (National Research Council, 2006), in order to distinguish the physiological state of hunger from indicators of food availability. The criteria by which households were classified remained unchanged. See box, “What is ‘very low food security’?” on page 5 for further information on these changes.

⁸Food security and insecurity, as measured for this report, are based on respondent perceptions of whether the household was able to obtain enough food to meet their needs. The measure does not specifically address whether the household’s food intake was sufficient for active, healthy lives. Nonetheless, research based on other surveys has found food security, measured as in this report, to be associated with health, nutrition, and children’s development in a manner that generally supports the conceptualized link with sufficiency for active, healthy lives.

Figure 1
U.S. households by food security status, 2007



Source: Calculated by ERS using data from December 2007 Current Population Survey Food Security Supplement.

What Is “Very Low Food Security”?

The defining characteristic of “very low food security” (described in *Household Food Security* reports prior to 2006 as “food insecurity with hunger”) is that, at times during the year, the food intake of household members was reduced and their normal eating patterns disrupted because the household lacked money and other resources for food. Very low food security can be characterized in terms of the conditions that households in this category reported in the food security survey. In the 2007 survey, **households classified as having very low food security** (representing an estimated 4.7 million households nationwide) reported the following specific conditions:

- 98 percent reported having worried that their food would run out before they got money to buy more.
- 97 percent reported that the food they bought just did not last and they did not have money to get more.
- 94 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; 87 percent reported that this had occurred in 3 or more months.
- 93 percent reported that they had eaten less than they felt they should because there was not enough money for food.
- 65 percent reported that they had been hungry but did not eat because they could not afford enough food.
- 45 percent reported having lost weight because they did not have enough money for food.
- 29 percent reported that an adult did not eat for a whole day because there was not enough money for food; 22 percent reported that this had occurred in 3 or more months.
- All of those without children reported at least six of these conditions, and 66 percent reported seven or more. (Conditions in households with children were similar, but the reported food insecure conditions of both adults and children were taken into account.)

USDA introduced the terminology, “very low food security” to replace “food insecurity with hunger”

in 2006 in response to recommendations by the Committee on National Statistics (CNSTAT) of the National Academies. The expert panel convened by CNSTAT recommended that USDA make a clear and explicit distinction between food insecurity, which is a household-level economic and social condition of limited or uncertain access to adequate food, and hunger, which is an individual-level physiological condition that may result from food insecurity. The CNSTAT panel recommended that USDA consider alternate labels to convey the severity of food insecurity without using the word “hunger,” since hunger is not adequately assessed in the food security survey.

Additional information about the CNSTAT assessment of the food security measure is provided in appendix B. A summary of the CNSTAT panel’s report, *Food Insecurity and Hunger in the United States: An Assessment of the Measure*, and a link to the full text are available at: www.ers.usda.gov/Briefing/FoodSecurity/NASsummary.htm.

Households reporting each indicator of food insecurity, by food security status, 2007



Source: Calculated by ERS using data from the December 2007 Current Population Survey Food Security Supplement.

Table 1A

Households and individuals by food security status of household, 1998-2007

Unit	Total ¹	Food secure		Food insecure						
				All		With low food security		With very low food security		
				1,000	Percent	1,000	Percent	1,000	Percent	1,000
Households:										
2007	117,100	104,089	88.9	13,011	11.1	8,262	7.0	4,749	4.1	
2006	115,609	102,961	89.1	12,648	10.9	8,031	6.9	4,617	4.0	
2005	114,437	101,851	89.0	12,586	11.0	8,158	7.1	4,428	3.9	
2004	112,967	99,473	88.1	13,494	11.9	9,045	8.0	4,449	3.9	
2003	112,214	99,631	88.8	12,583	11.2	8,663	7.7	3,920	3.5	
2002	108,601	96,543	88.9	12,058	11.1	8,259	7.6	3,799	3.5	
2001	107,824	96,303	89.3	11,521	10.7	8,010	7.4	3,511	3.3	
2000	106,043	94,942	89.5	11,101	10.5	7,786	7.3	3,315	3.1	
1999	104,684	94,154	89.9	10,529	10.1	7,420	7.1	3,109	3.0	
1998	103,309	91,121	88.2	12,188	11.8	8,353	8.1	3,835	3.7	
All individuals (by food security status of household): ²										
2007	297,042	260,813	87.8	36,229	12.2	24,287	8.2	11,942	4.0	
2006	294,010	258,495	87.9	35,515	12.1	24,395	8.3	11,120	3.8	
2005	291,501	256,373	87.9	35,128	12.1	24,349	8.4	10,779	3.7	
2004	288,603	250,407	86.8	38,196	13.2	27,535	9.5	10,661	3.7	
2003	286,410	250,155	87.3	36,255	12.7	26,622	9.3	9,633	3.4	
2002	279,035	244,133	87.5	34,902	12.5	25,517	9.1	9,385	3.4	
2001	276,661	243,019	87.8	33,642	12.2	24,628	8.9	9,014	3.3	
2000	273,685	240,454	87.9	33,231	12.1	24,708	9.0	8,523	3.1	
1999	270,318	239,304	88.5	31,015	11.5	23,237	8.6	7,779	2.9	
1998	268,366	232,219	86.5	36,147	13.5	26,290	9.8	9,857	3.7	
Adults (by food security status of household): ²										
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	

¹Totals exclude households whose food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2007, these represented 462,000 households (0.4 percent of all households).

²The food security survey measures food security status at the household level. Not all individuals residing in food-insecure households were directly affected by the households' food insecurity. Similarly, not all individuals in households classified as having very low food security were subject to the reductions in food intake and disruptions in eating patterns that characterize this condition. Young children, in particular, are often protected from effects of the households' food insecurity.

Sources: Calculated by ERS using data from the August 1998, April 1999, September 2000, December 2001, December 2002, December 2003, December 2004, December 2005, December 2006, and December 2007 Current Population Survey Food Security Supplements.

of all U.S. households) had *very low food security*—that is, they were food insecure to the extent that eating patterns of one or more household members were disrupted and their food intake reduced, at least some time during the year, because they couldn't afford enough food.

Children in most food-insecure households—even in most households with very low food security—were protected from reductions in food intake. However, in about 323,000 households (0.8 percent of households with children), one or more children were also subject to reduced food intake and disrupted eating patterns at some time during the year (table 1B). In some households with very low food security among children, only older children may have been subjected to the more severe effects of food insecurity while younger children were protected from those effects.

When interpreting food security statistics, it is important to keep in mind that households are classified as having low or very low food security if they experienced the condition at any time during the previous 12 months. The prevalence of these conditions on any given day is far below the corresponding annual prevalence. For example, the prevalence of very low food security on

Table 1B

Households with children, and children, by food security status of household, 1998-2007

	Total ¹ 1,000	Food secure		With low or very low food security among adults or children		With very low food security among children	
		1,000	Percent	1,000	Percent	1,000	Percent
Households with children:							
2007	39,390	33,160	84.2	6,230	15.8	323	0.8
2006	39,436	33,279	84.4	6,157	15.6	221	.6
2005	39,601	33,404	84.4	6,197	15.6	270	.7
2004	39,990	32,967	82.4	7,023	17.6	274	.7
2003	40,286	33,575	83.3	6,711	16.7	207	.5
2002	38,647	32,267	83.5	6,380	16.5	265	.7
2001	38,330	32,141	83.9	6,189	16.1	211	.6
2000	38,113	31,942	83.8	6,171	16.2	255	.7
1999	37,884	32,290	85.2	5,594	14.8	219	.6
1998	38,036	31,335	82.4	6,701	17.6	331	.9
Children (by food security status of household): ²							
2007	73,575	61,140	83.1	12,435	16.9	691	0.9
2006	73,587	60,959	82.8	12,628	17.2	430	.6
2005	73,604	61,201	83.1	12,403	16.9	606	.8
2004	73,039	59,171	81.0	13,868	19.0	545	.7
2003	72,969	59,704	81.8	13,265	18.2	420	.6
2002	72,542	59,415	81.9	13,127	18.1	567	.8
2001	72,321	59,620	82.4	12,701	17.6	467	.6
2000	71,763	58,867	82.0	12,896	18.0	562	.8
1999	71,418	59,344	83.1	12,074	16.9	511	.7
1998	71,282	57,255	80.3	14,027	19.7	716	1.0

¹Totals exclude households whose food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2007, these represented 202,000 households (0.5 percent of all households with children).

²The food security survey measures food security status at the household level. Not all children residing in food-insecure households were directly affected by the households' food insecurity. Similarly, not all children in households classified as having very low food security among children were subject to the reductions in food intake and disruptions in eating patterns that characterize this condition. Young children, in particular, are often protected from effects of the households' food insecurity.

Sources: Calculated by ERS using data from the August 1998, April 1999, September 2000, December 2001, December 2002, December 2003, December 2004, December 2005, December 2006, and December 2007 Current Population Survey Food Security Supplements.

an average day during the 30-day period prior to the December 2007 survey is estimated to have been between 0.5 and 0.8 percent of households (609,000 to 941,000 households; see box, “When Food Insecurity Occurs in U.S. Households, It Is Usually Recurrent but not Chronic”). Children, as well as adults, experienced very low food security in an estimated 45,000 to 65,000 households (0.11 to 0.17 percent of all U.S. households with children) during the same period.

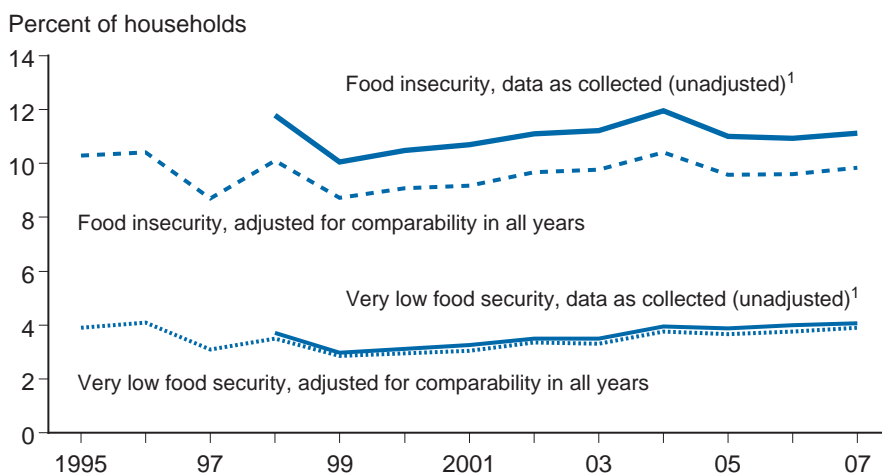
The prevalence of food insecurity in 2007 (11.1 percent of households) was about the same as in 2005 (11.0 percent) and 2006 (10.9 percent); the difference in the estimates is within the range that could have resulted from sampling variation. The prevalence of very low food security in 2007 (4.1 percent of households) was also not significantly different from either 2005 (3.9 percent) or 2006 (4.0 percent). The prevalence of very low food security among children in 2007 (0.8 percent) was up from 2006 (0.6 percent). This rate had remained in the range of 0.5 to 0.7 percent (with no statistically significant changes) since 1999.

The prevalence of food insecurity increased from 1999 to a recent peak in 2004, then fell to about its current level in 2005 (fig. 2).⁹ The prevalence of very low food security also increased from 1999 to 2004 and has remained essentially unchanged since 2004. From 1995 to 2000, the prevalence rates reflected an overall decline in food insecurity but also a 2-year cyclical component that was associated with data collection schedules (Cohen et al., 2002a). The CPS food security surveys over that period alternated between April in odd-numbered years and August or September in even-numbered years. The measured prevalence of food insecurity was higher in the August/September collections, suggesting a seasonal response effect. Since 2001, the survey has been conducted in early December, which avoids further problems of seasonality effects in interpreting annual changes.¹⁰

⁹Because of changes in screening procedures used to reduce respondent burden, food security statistics from 1995-97 are not directly comparable with those from 1998-2007. Figure 2 presents statistics for the years 1995-2007, adjusted to be comparable across all years, as well as statistics for 1998-2007 based on data as collected. See Andrews et al. (2000) and Ohls et al. (2001) for detailed information about questionnaire screening and adjustments for comparability.

¹⁰A smaller food security survey was also conducted in April 2001 to provide a baseline for assessing seasonal effects of data collection in December. Comparison of food security statistics from the April 2001 survey with those from April 1999 and December 2001 suggest that seasonal effects in early December were similar to those in April (Nord et al., 2002a).

Figure 2
Trends in the prevalence of food insecurity in U.S. households, 1995-2007



¹Data as collected in 1995-97 are not directly comparable with data collected in 1998-2007. Source: Calculated by ERS based on Current Population Survey Food Security Supplement data.

When Food Insecurity Occurs in U.S. Households, It Is Usually Recurrent but not Chronic

When households experience very low food security in the United States, the resulting instances of reduced food intake and disrupted eating patterns are usually occasional or episodic but are not usually chronic. The food security measurement methods used in this report are designed to register these occasional or episodic occurrences. The questions used to assess households' food security status ask whether a condition, experience, or behavior occurred at any time in the past 12 months, and households can be classified as having very low food security based on a single, severe episode during the year. It is important to keep this aspect of the scale in mind when interpreting food insecurity statistics. Analysis 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 2007:

- About one-fourth of the households with very low food security at any time during the year experienced the associated conditions rarely or occasionally—in only 1 or 2 months of the year. For three-fourths of households, the conditions were recurring, experienced in 3 or more months of the year.
- For about one-fourth of food-insecure households and one-third of those with very low food security, occurrence of the associated conditions was frequent or chronic. That is, the conditions occurred often, or in almost every month.
- On average, households that were food insecure at some time during the year were food insecure in 7 months during the year (see appendix D). During the 30-day period ending in mid-December 2007, 7.4 million households (6.3 percent of all households) were food insecure—about 57 percent of the number that were food insecure at any time during the year.
- On average, households with very low food security at some time during the year experienced the associated conditions in 7 months during the year (see appendix D). During the 30-day period ending in mid-December 2007, 2.8 million households (2.4 percent of all households) had very low food security—about 60 percent of the number with very low food security at some time during the year.

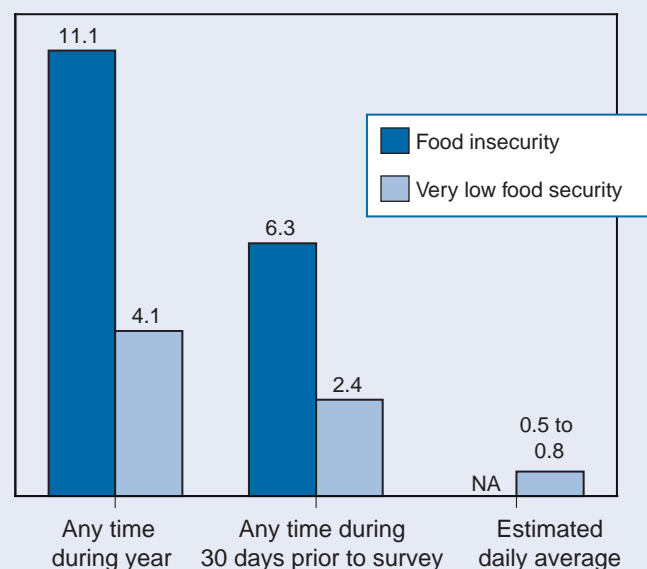
- Most households that had very low food security at some time during a month experienced the associated conditions in 1 to 7 days of the month. The average daily prevalence of very low food security during the 30-day period ending in mid-December 2007 was probably between 609,000 and 941,000 households (0.5 to 0.8 percent of all households)—about 13 to 20 percent of the annual prevalence.
- The daily prevalence of very low food security among children during the 30-day period ending in early December 2007 was probably between 45,000 and 65,000 households (0.11 to 0.17 percent of households with children)—about 14 to 20 percent of the annual prevalence.

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

(Appendix A provides information on how often conditions indicating food insecurity occurred, as reported by respondents to the December 2007 food security survey. See Nord et al., 2000, for more information about the frequency of food insecurity.)

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

Percent of households



NA = Not available.

Source: Calculated by ERS using data from the December 2007 Current Population Survey Food Security Supplement.

Prevalence of Food Insecurity—Conditions and Trends by Selected Household Characteristics

The prevalence of food insecurity varied considerably among household types (table 2). Rates of food insecurity were well below the national average of 11.1 percent for households with more than one adult and no children (6.7 percent) and for households with elderly persons (6.5 percent).¹¹ Rates of food insecurity substantially higher than the national average were registered by the following groups:

- households with incomes below the official poverty line (37.7 percent),¹²
- households with children, headed by single women (30.2 percent) or single men (18.0 percent),
- Black households (22.2 percent), and
- Hispanic households (20.1 percent).

Food insecurity was more prevalent among households with children (15.8 percent) than among those with no children (8.7 percent).¹³ Among households with children, those headed by a married couple showed the lowest rate of food insecurity (10.5 percent).

The prevalence rates of food insecurity for households located in principal cities of metropolitan areas (13.5 percent) and in nonmetropolitan areas (11.7 percent) substantially exceeded the rate for households in suburbs and other metropolitan areas outside principal cities (9.0 percent).¹⁴ Regionally, the prevalence of food insecurity was higher in the South (11.8 percent) than in the Northeast (10.3 percent) and Midwest (10.7 percent). Other inter-region differences were not statistically significant.

The prevalence rates of very low food security in various types of households followed a pattern similar to that observed for food insecurity. Rates were lowest for married couples with children (2.7 percent), multiple-adult households with no children (2.7 percent), and households with elderly persons (2.4 percent). Very low food security was more prevalent than the national average (4.1 percent) among households with children headed by single women (10.3 percent), women living alone (5.3 percent), men living alone (5.1 percent), Black and Hispanic households (7.7 and 6.6 percent, respectively), households with incomes below the poverty line (14.9 percent), and households living in principal cities of metropolitan areas (5.0 percent).

Very low food security among children was least prevalent in married-couple households, White non-Hispanic households, and households with incomes above 185 percent of the poverty line (table 3). Children in households headed by single women were more likely to experience very low food security, as were children in households headed by a Hispanic person and those in households with incomes below 185 percent of the poverty line.

The prevalence of food insecurity increased from 2006 to 2007 for elderly persons living alone, households with annual incomes less than 185 percent of the Federal poverty line, and in the Northeast and West (fig. 3). The prevalence of very low food security increased from 2006 to 2007 for married

¹¹“Elderly” in this report refers to persons ages 65 and older.

¹²The Federal poverty line was \$21,027 for a family of four in 2007.

¹³The higher rate of food insecurity for households with children results, in part, from a difference in the measures applied to households with and without children. Responses to questions about children as well as adults are considered in assessing the food security status of households with children, but for both types of households, a total of three indications of food insecurity is required for classification as food insecure. Even with the child-referenced questions omitted from the scale, however, 13.4 percent of households with children would be classified as food insecure (that is, as having food insecurity among adults), compared with 8.7 percent for households without children. Comparisons of very low food security are not biased by this measurement issue because a higher threshold is applied to households with children consistent with the larger number of questions taken into consideration.

¹⁴Revised metropolitan statistical areas (MSAs) and principal cities within them were delineated by the Office of Management and Budget in 2003 based on revised standards developed by the U.S. Census Bureau in collaboration with other Federal agencies. Food security prevalence statistics by area of residence are comparable with those for 2004 and later years, but are not precisely comparable with those for 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.

Table 2

Households by food security status and selected household characteristics, 2007

Category	Total ¹	Food insecure							
		Food secure		All		With low food security		With very low food security	
		1,000	1,000 Percent	1,000	Percent	1,000	Percent	1,000	Percent
All households	117,100	104,089	88.9	13,011	11.1	8,262	7.0	4,749	4.1
Household composition:									
With children < 18 yrs	39,390	33,160	84.2	6,230	15.8	4,376	11.1	1,854	4.7
With children < 6 yrs	17,549	14,550	82.9	2,999	17.1	2,251	12.8	748	4.3
Married-couple families	26,645	23,852	89.5	2,793	10.5	2,074	7.8	719	2.7
Female head, no spouse	9,458	6,600	69.8	2,858	30.2	1,882	19.9	976	10.3
Male head, no spouse	2,621	2,150	82.0	471	18.0	335	12.8	136	5.2
Other household with child ²	667	560	84.0	107	16.0	84	12.6	23	3.4
With no children < 18 yrs	77,710	70,928	91.3	6,782	8.7	3,887	5.0	2,895	3.7
More than one adult	45,350	42,291	93.3	3,059	6.7	1,851	4.1	1,208	2.7
Women living alone	18,395	16,242	88.3	2,153	11.7	1,179	6.4	974	5.3
Men living alone	13,966	12,396	88.8	1,570	11.2	856	6.1	714	5.1
With elderly	27,469	25,692	93.5	1,777	6.5	1,131	4.1	646	2.4
Elderly living alone	10,746	9,963	92.7	783	7.3	480	4.5	303	2.8
Race/ethnicity of households:									
White non-Hispanic	82,882	76,342	92.1	6,540	7.9	4,008	4.8	2,532	3.1
Black non-Hispanic	14,209	11,057	77.8	3,152	22.2	2,064	14.5	1,088	7.7
Hispanic ³	13,378	10,694	79.9	2,684	20.1	1,798	13.4	886	6.6
Other	6,632	5,996	90.4	636	9.6	392	5.9	244	3.7
Household income-to-poverty ratio:									
Under 1.00	11,688	7,282	62.3	4,406	37.7	2,669	22.8	1,737	14.9
Under 1.30	17,395	11,451	65.8	5,944	34.2	3,574	20.5	2,370	13.6
Under 1.85	27,378	19,534	71.3	7,844	28.7	4,780	17.5	3,064	11.2
1.85 and over	65,898	62,244	94.5	3,654	5.5	2,429	3.7	1,225	1.9
Income unknown	23,825	22,312	93.6	1,513	6.4	1,053	4.4	460	1.9
Area of residence: ⁴									
Inside metropolitan area	97,572	86,850	89.0	10,722	11.0	6,807	7.0	3,915	4.0
In principal cities ⁵	32,843	28,420	86.5	4,423	13.5	2,772	8.4	1,651	5.0
Not in principal cities	47,971	43,640	91.0	4,331	9.0	2,865	6.0	1,466	3.1
Outside metropolitan area	19,528	17,239	88.3	2,289	11.7	1,455	7.5	834	4.3
Census geographic region:									
Northeast	21,353	19,147	89.7	2,206	10.3	1,469	6.9	737	3.5
Midwest	26,506	23,658	89.3	2,848	10.7	1,741	6.6	1,107	4.2
South	43,246	38,145	88.2	5,101	11.8	3,262	7.5	1,839	4.3
West	25,995	23,139	89.0	2,856	11.0	1,790	6.9	1,066	4.1

¹Totals exclude households whose food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2007, these represented 462,000 households (0.4 percent of all households).

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

³Hispanics may be of any race.

⁴Metropolitan area residence is based on 2003 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2004 and later years but are not precisely comparable with those of earlier years.

⁵Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 17 percent of households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2007 Current Population Survey Food Security Supplement.

Table 3

Prevalence of food security and food insecurity in households with children by selected household characteristics, 2007

Category	Total ¹	Food-secure households		Food-insecure households ²		Households with very low food security among children	
		1,000	Percent	1,000	Percent	1,000	Percent
All households with children	39,390	33,160	84.2	6,230	15.8	323	0.8
Household composition:							
With children < 6 yrs	17,549	14,549	82.9	3,000	17.1	100	.6
Married-couple families	26,645	23,852	89.5	2,793	10.5	124	.5
Female head, no spouse	9,458	6,600	69.8	2,858	30.2	170	1.8
Male head, no spouse	2,621	2,150	82.0	471	18.0	24	.9
Other household with child ³	667	560	84.0	107	16.0	4	.6
Race/ethnicity of households:							
White non-Hispanic	24,137	21,313	88.3	2,824	11.7	113	.5
Black non-Hispanic	5,504	4,078	74.1	1,426	25.9	76	1.4
Hispanic ⁴	7,183	5,473	76.2	1,710	23.8	120	1.7
Other	2,567	2,297	89.5	270	10.5	14	.5
Household income-to-poverty ratio:							
Under 1.00	5,330	3,002	56.3	2,328	43.7	130	2.4
Under 1.30	7,292	4,269	58.5	3,023	41.5	177	2.4
Under 1.85	11,509	7,433	64.6	4,076	35.4	226	2.0
1.85 and over	21,432	19,944	93.1	1,488	6.9	50	.2
Income unknown	6,449	5,784	89.7	665	10.3	47	.7
Area of residence: ⁵							
Inside metropolitan area	33,041	27,938	84.6	5,103	15.4	287	.9
In principal cities ⁶	10,558	8,536	80.8	2,022	19.2	152	1.4
Not in principal cities	17,164	14,934	87.0	2,230	13.0	68	.4
Outside metropolitan area	6,349	5,223	82.3	1,126	17.7	35	.6
Census geographic region:							
Northeast	7,111	6,070	85.4	1,041	14.6	61	.9
Midwest	8,601	7,312	85.0	1,289	15.0	58	.7
South	14,488	12,007	82.9	2,481	17.1	102	.7
West	9,191	7,773	84.6	1,418	15.4	102	1.1
Individuals in households with children:							
All individuals in households with children	159,062	134,030	84.3	25,032	15.7	1,314	.8
Adults in households with children	85,487	72,890	85.3	12,597	14.7	623	.7
Children	73,575	61,140	83.1	12,435	16.9	691	.9

¹Totals exclude households whose food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2007, these represented 202,000 households with children (0.5 percent of all households with children).

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

³Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

⁴Hispanics may be of any race.

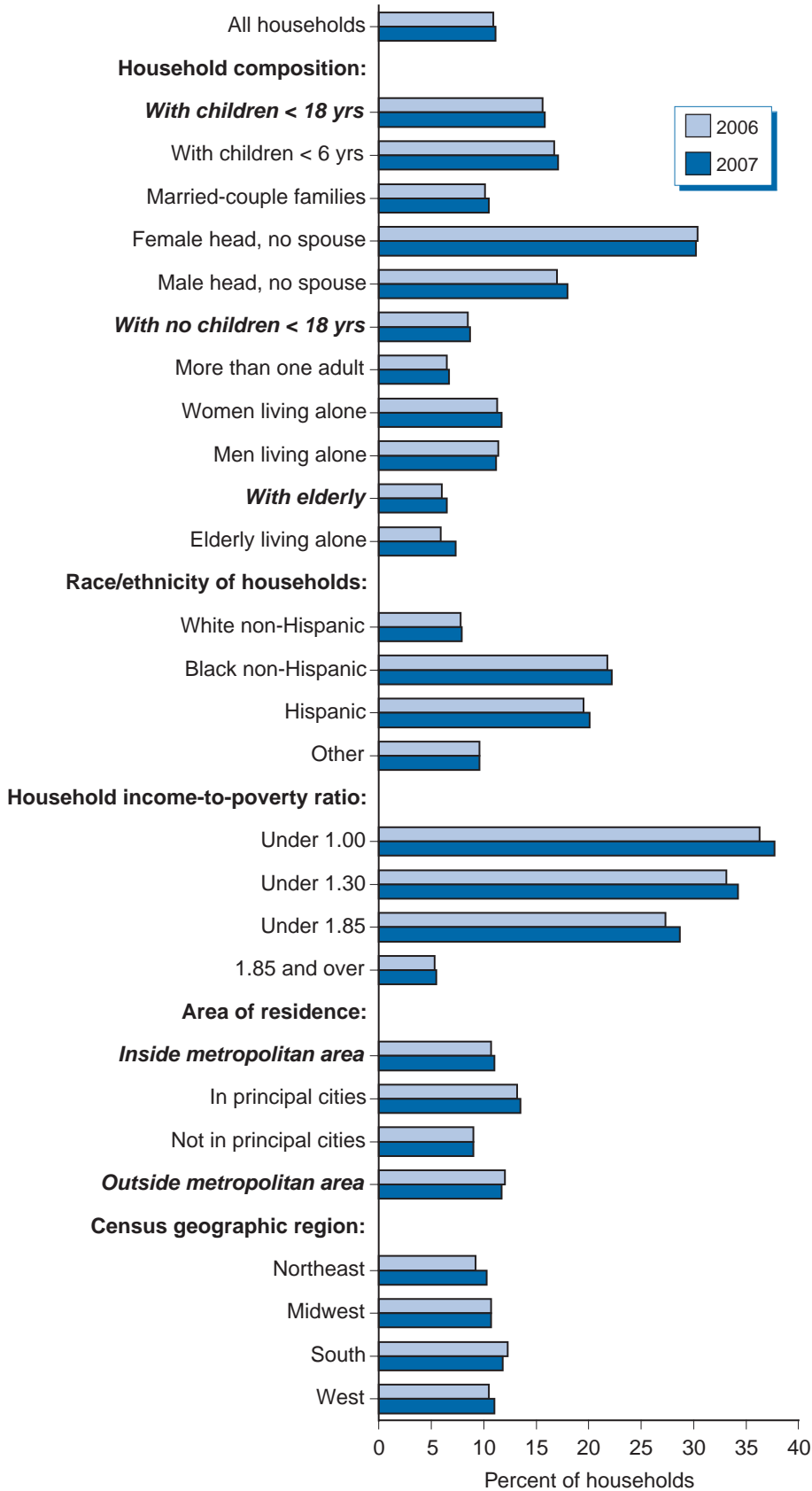
⁵Metropolitan area residence is based on 2003 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2004 and later years but are not precisely comparable with those of earlier years.

⁶Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 17 percent of households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2007 Current Population Survey Food Security Supplement.

Figure 3

Prevalence of food insecurity, 2006 and 2007



Source: Calculated by ERS based on Current Population Survey Food Security Supplement data, December 2006 and December 2007.

couples with children and for households with elderly (fig. 4). Changes in other categories were within a range that could have resulted from sampling variation.

Food Insecurity in Low-Income Households

Food insecurity is by definition a condition that results from insufficient household resources. In 2007, food insecurity was more than five times as prevalent in households with annual incomes below 185 percent of the poverty line as it was in households with incomes above that range (table 2). However, many factors that might affect a household's food security (such as job loss, divorce, or other unexpected events) are not captured by an annual income measure. Some households experienced episodes of food insecurity, or even very low food security, even though their annual incomes were well above the poverty line (Nord and Brent, 2002; Gundersen and Gruber, 2001). On the other hand, many low-income households (including almost two-thirds of those with incomes below the official poverty line) were food secure.

Table 4 presents food security statistics for households with annual incomes below 130 percent of the poverty line.¹⁵ One in three of these low-income households was food insecure, including 13.6 percent that had very low food security at times during the year. Low-income households with children were more likely to be food insecure than low-income households without children (41.5 percent vs. 28.9 percent), but were no more likely to have very low food security (13.5 percent vs. 13.7 percent). Low-income households with children headed by single women were especially vulnerable to food insecurity (44.7 percent).

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

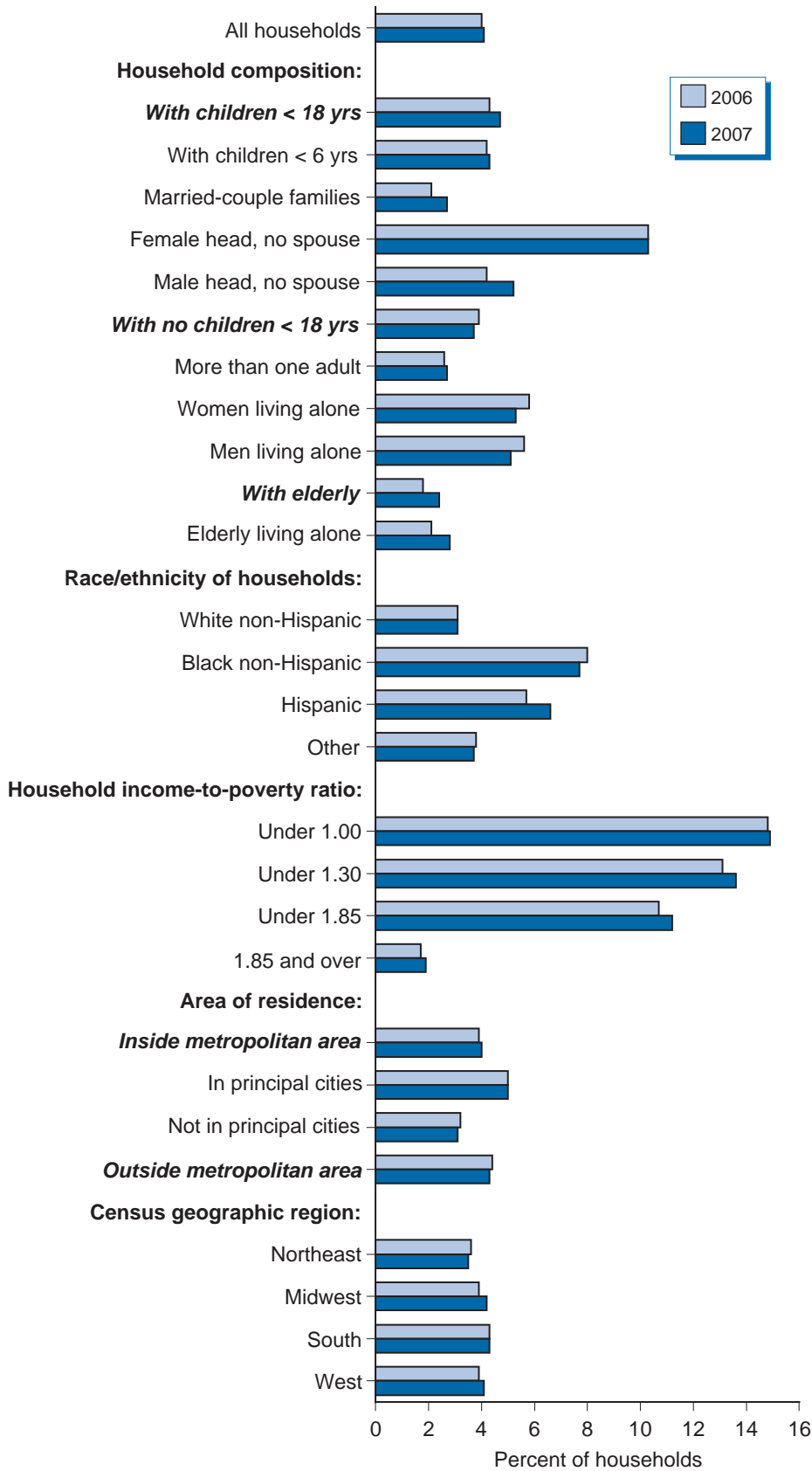
The food security survey is designed to measure food security status at the household level. While it is informative to examine the number of persons residing in food-insecure households, these statistics should be interpreted carefully. In a single food-insecure household, different household members may have been affected differently by the households' food insecurity. Some members—particularly young children—may have experienced only mild effects or none at all, while adults were more severely affected. It is more precise, therefore, to describe these statistics as representing “persons living in food-insecure households” rather than as representing “food-insecure persons.” Similarly, “persons living in households with very low food security” is a more precise description than “persons with very low food security.”

In 2007, 36.2 million people lived in food-insecure households (table 1A). They constituted 12.2 percent of the U.S. civilian noninstitutionalized population and included 23.8 million adults and 12.4 million children. Of these individuals, 8.2 million adults and 3.7 million children lived in households with very low food security, and 691,000 children (0.9 percent of U.S. children) lived in households with very low food security among children (table 1B). Tables 5 and 6 present estimates of the number of people and the number of children in the households in each food security status and household type.

¹⁵Households with income below 130 percent of the poverty line are eligible to receive food stamps, provided they meet other eligibility criteria. Children in these households are eligible for free meals in the National School Lunch and School Breakfast Programs.

Figure 4

Prevalence of very low food security, 2006 and 2007



Source: Calculated by ERS based on Current Population Survey Food Security Supplement data, December 2006 and December 2007.

Table 4

Households with income below 130 percent of the poverty line by food security status and selected household characteristics, 2007

Category	Total ¹	Food secure		Food insecure					
		1,000	Percent	All		With low food security		With very low food security	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All low-income households	17,395	11,451	65.8	5,944	34.2	3,574	20.5	2,370	13.6
Household composition:									
With children < 18 yrs	7,292	4,269	58.5	3,023	41.5	2,037	27.9	986	13.5
With children < 6 yrs	4,020	2,412	60.0	1,608	40.0	1,137	28.3	471	11.7
Married-couple families	2,766	1,727	62.4	1,039	37.6	729	26.4	310	11.2
Female head, no spouse	3,879	2,145	55.3	1,734	44.7	1,135	29.3	599	15.4
Male head, no spouse	494	302	61.1	192	38.9	129	26.1	63	12.8
Other household with child ²	153	95	62.1	58	37.9	44	28.8	14	9.2
With no children < 18 yrs	10,103	7,183	71.1	2,920	28.9	1,536	15.2	1,384	13.7
More than one adult	3,691	2,648	71.7	1,043	28.3	588	15.9	455	12.3
Women living alone	3,957	2,847	71.9	1,110	28.1	553	14.0	557	14.1
Men living alone	2,455	1,687	68.7	768	31.3	396	16.1	372	15.2
With elderly	3,917	3,105	79.3	812	20.7	495	12.6	317	8.1
Elderly living alone	2,375	1,933	81.4	442	18.6	256	10.8	186	7.8
Race/ethnicity of households:									
White non-Hispanic	8,740	6,118	70.0	2,622	30.0	1,453	16.6	1,169	13.4
Black non-Hispanic	3,788	2,178	57.5	1,610	42.5	1,035	27.3	575	15.2
Hispanic ³	3,906	2,494	63.9	1,412	36.1	897	23.0	515	13.2
Other	961	663	69.0	298	31.0	188	19.6	110	11.4
Area of residence: ⁴									
Inside metropolitan area	13,512	8,794	65.1	4,718	34.9	2,845	21.1	1,873	13.9
In principal cities ⁵	6,053	3,904	64.5	2,149	35.5	1,250	20.7	899	14.9
Not in principal cities	4,715	3,134	66.5	1,581	33.5	1,035	22.0	546	11.6
Outside metropolitan area	3,883	2,657	68.4	1,226	31.6	729	18.8	497	12.8
Census geographic region:									
Northeast	2,627	1,691	64.4	936	35.6	577	22.0	359	13.7
Midwest	3,657	2,394	65.5	1,263	34.5	691	18.9	572	15.6
South	7,323	4,867	66.5	2,456	33.5	1,517	20.7	939	12.8
West	3,788	2,500	66.0	1,288	34.0	788	20.8	500	13.2
Individuals in low-income households (by food security status of household):									
All individuals in low-income households	45,432	28,604	63.0	16,828	37.0	10,773	23.7	6,055	13.3
Adults in low-income households	29,580	19,282	65.2	10,298	34.8	6,385	21.6	3,913	13.2
Children in low-income households	15,852	9,323	58.8	6,529	41.2	4,387	27.7	2,142	13.5

¹Totals exclude households whose income was not reported (about 20 percent of households), and those whose food security status is unknown because they did not give a valid response to any of the questions in the food security scale (0.9 percent of low-income households).

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

³Hispanics may be of any race.

⁴Metropolitan area residence is based on 2003 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2004 and later years but are not precisely comparable with those of earlier years.

⁵Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 20 percent of low-income households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2007 Current Population Survey Food Security Supplement.

Table 5

Number of individuals by food security status of households and selected household characteristics, 2007

Category	Total ¹	In food-insecure households							
		In food-secure households		All		In households with low food security		In households with very low food security	
		1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All individuals in households	297,042	260,813	87.8	36,229	12.2	24,287	8.2	11,942	4.0
Household composition:									
With children < 18 yrs	159,062	134,031	84.3	25,031	15.7	17,770	11.2	7,261	4.6
With children < 6 yrs	74,842	61,588	82.3	13,254	17.7	9,889	13.2	3,365	4.5
Married-couple families	115,230	102,212	88.7	13,018	11.3	9,573	8.3	3,445	3.0
Female head, no spouse	32,484	22,619	69.6	9,865	30.4	6,598	20.3	3,267	10.1
Male head, no spouse	8,809	7,098	80.6	1,711	19.4	1,251	14.2	460	5.2
Other household with child ²	2,539	2,102	82.8	437	17.2	348	13.7	89	3.5
With no children < 18 yrs	137,979	126,781	91.9	11,198	8.1	6,517	4.7	4,681	3.4
More than one adult	105,691	98,208	92.9	7,483	7.1	4,486	4.2	2,997	2.8
Women living alone	18,353	16,205	88.3	2,148	11.7	1,177	6.4	971	5.3
Men living alone	13,934	12,368	88.8	1,566	11.2	854	6.1	712	5.1
With elderly	52,933	49,082	92.7	3,851	7.3	2,585	4.9	1,266	2.4
Elderly living alone	10,722	9,941	92.7	781	7.3	479	4.5	302	2.8
Race/ethnicity of households:									
White non-Hispanic	198,599	181,936	91.6	16,663	8.4	10,768	5.4	5,895	3.0
Black non-Hispanic	35,901	27,990	78.0	7,911	22.0	5,400	15.0	2,511	7.0
Hispanic ³	44,077	34,242	77.7	9,835	22.3	6,898	15.6	2,937	6.7
Other	18,465	16,645	90.1	1,820	9.9	1,221	6.6	599	3.2
Household income-to-poverty ratio:									
Under 1.00	31,884	19,166	60.1	12,718	39.9	8,119	25.5	4,599	14.4
Under 1.30	45,432	28,604	63.0	16,828	37.0	10,773	23.7	6,055	13.3
Under 1.85	72,880	50,201	68.9	22,679	31.1	14,734	20.2	7,945	10.9
1.85 and over	166,467	157,037	94.3	9,430	5.7	6,600	4.0	2,830	1.7
Income unknown	57,694	53,574	92.9	4,120	7.1	2,953	5.1	1,167	2.0
Area of residence: ⁴									
Inside metropolitan area	248,390	218,353	87.9	30,037	12.1	20,117	8.1	9,920	4.0
In principal cities ⁵	80,359	68,353	85.1	12,006	14.9	7,860	9.8	4,146	5.2
Not in principal cities	127,204	114,185	89.8	13,019	10.2	9,141	7.2	3,878	3.0
Outside metropolitan area	48,651	42,459	87.3	6,192	12.7	4,170	8.6	2,022	4.2
Census geographic region:									
Northeast	53,727	47,986	89.3	5,741	10.7	3,900	7.3	1,841	3.4
Midwest	65,105	57,839	88.8	7,266	11.2	4,703	7.2	2,563	3.9
South	109,036	94,618	86.8	14,418	13.2	9,791	9.0	4,627	4.2
West	69,174	60,368	87.3	8,806	12.7	5,894	8.5	2,912	4.2

¹Totals exclude individuals in households whose food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2007, these represented 1,233,000 individuals (0.4 percent of all individuals).

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

³Hispanics may be of any race.

⁴Metropolitan area residence is based on 2003 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2004 and later years but are not precisely comparable with those of earlier years.

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

Source: Calculated by ERS using data from the December 2007 Current Population Survey Food Security Supplement.

Table 6

Number of children by food security status of households and selected household characteristics, 2007

Category	Total ¹	In food-secure households		In food-insecure households ²		In households with very low food security among children	
		1,000	Percent	1,000	Percent	1,000	Percent
All children	73,575	61,140	83.1	12,435	16.9	691	0.9
Household composition:							
With children < 6 yrs	37,139	30,132	81.1	7,007	18.9	292	.8
Married-couple families	51,733	45,639	88.2	6,094	11.8	315	.6
Female head, no spouse	16,921	11,541	68.2	5,380	31.8	346	2.0
Male head, no spouse	3,896	3,098	79.5	798	20.5	25	.6
Other household with child ³	1,026	863	84.1	163	15.9	4	.4
Race/ethnicity of households:							
White non-Hispanic	44,117	38,866	88.1	5,251	11.9	201	.5
Black non-Hispanic	10,615	7,840	73.9	2,775	26.1	192	1.8
Hispanic ⁴	14,433	10,581	73.3	3,852	26.7	277	1.9
Other	4,409	3,851	87.3	558	12.7	22	.5
Household income-to-poverty ratio:							
Under 1.00	12,080	6,895	57.1	5,185	42.9	359	3.0
Under 1.30	15,852	9,323	58.8	6,529	41.2	439	2.8
Under 1.85	24,571	15,877	64.6	8,694	35.4	518	2.1
1.85 and over	37,483	34,883	93.1	2,600	6.9	85	.2
Income unknown	11,521	10,380	90.1	1,141	9.9	88	.8
Area of residence: ⁵							
Inside metropolitan area	61,415	51,123	83.2	10,292	16.8	625	1.0
In principal cities ⁶	19,996	15,748	78.8	4,248	21.2	305	1.5
Not in principal cities	31,784	27,351	86.1	4,433	13.9	181	.6
Outside metropolitan area	12,160	10,018	82.4	2,142	17.6	65	.5
Census geographic region:							
Northeast	12,328	10,526	85.4	1,802	14.6	84	.7
Midwest	15,936	13,477	84.6	2,459	15.4	150	.9
South	27,375	22,375	81.7	5,000	18.3	234	.9
West	17,935	14,762	82.3	3,173	17.7	222	1.2

¹Totals exclude children in households whose food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2007, these represented 419,000 children (0.6 percent).

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

³Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

⁴Hispanics may be of any race.

⁵Metropolitan area residence is based on 2003 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2004 and later years, but are not precisely comparable with those of earlier years.

⁶Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 16 percent of children living in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2007 Current Population Survey Food Security Supplement.

Prevalence of Food Insecurity by State

The prevalence of food insecurity varied considerably from State to State. Data for 3 years, 2005-07, were combined to provide more reliable statistics at the State level (table 7). Estimated prevalence rates of food insecurity during this 3-year period ranged from 6.5 percent in North Dakota to 17.4 percent in Mississippi; estimated prevalence rates of very low food security ranged from 2.2 percent in North Dakota to 7.0 percent in Mississippi.

The margin of error for the State prevalence rates should be taken into consideration when interpreting these statistics and especially when comparing prevalence rates across States. The margin of error reflects sampling variation—the uncertainty associated with estimates that are based on information from a limited number of households in each State. The margins of error presented in table 7 indicate the range (above or below the estimated prevalence rate) within which the true prevalence rate is 90 percent likely to fall. For example, considering the margins of error, it is not certain that the prevalence of very low food security was higher in Mississippi than in Maine, Oregon, or Utah.

Taking into account the 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 11 States and lower than the national average in 19 States. In the remaining 20 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, lower than the national average in 14 States, and not significantly different from the national average in 29 States and the District of Columbia.

State-level prevalence rates of food insecurity and very low food security for the period 2005-07 are compared with 3-year average rates for 2002-04 and 1996-98 in table 8. The prevalence rates for 2005-07 are repeated from table 7. The prevalence rates for the two earlier periods were reported previously in *Household Food Security in the United States, 2004* (Nord et al., 2005). The 1996-98 statistics presented here and in *Household Food Security in the United States, 2004* were revised from those reported in *Prevalence of Food Insecurity and Hunger, by State, 1996-1998* (Nord et al., 1999) to adjust for differences in data collection procedures in the two periods.¹⁶ They are presented as a baseline to assess longer term changes in State-level food security conditions.¹⁷

In seven States—California, Florida, Idaho, Montana, Oklahoma, Texas, and Washington—prevalence rates of food insecurity declined from 2002-04 to 2005-07 by statistically significant percentages. The largest declines were in Idaho and Montana. Prevalence rates increased by statistically significant percentages in Delaware, Maine, Minnesota, New Hampshire, Nevada, and West Virginia, with the largest increases observed in Maine and Minnesota. During the same period, the prevalence of very low food security increased by statistically significant percentages in 12 States. The largest increases were in Maine, and Mississippi. No State registered a statistically significant decline in very low food security. Changes not marked as statistically significant in table 8 were within ranges that could have resulted from sampling variation (that is, by the interviewed households not precisely representing all households in the State).

¹⁶To reduce the burden on survey respondents, households—especially those with higher incomes—that report no indication of any food access problems on two or three “screener” questions are not asked the questions in the food security module. They are classified as food secure. Screening procedures in the CPS food security surveys were modified from year to year prior to 1998 to achieve an acceptable balance between accuracy and respondent burden. Since 1998, screening procedures have remained unchanged. The older, more restrictive screening procedures depressed prevalence estimates—especially for food insecurity—compared with those in use since 1998 because a small proportion of food insecure households were screened out along with those that were food secure. To provide an appropriate baseline for assessing changes in State prevalence rates of food insecurity, statistics from the 1996-98 report were adjusted upward to offset the estimated effects of the earlier screening procedures on each States’ prevalence rates. The method used to calculate these adjustments was described in detail in *Household Food Security in the United States, 2001* (Nord et al., 2002), appendix D.

¹⁷Seasonal effects on food security measurement (discussed in section 1) probably bias prevalence rates for 1996-98 upward somewhat compared with 2002-04 and 2005-07. At the national level, this effect may have raised the measured prevalence rate of food insecurity in 1996-98 by about 0.8 percentage points and the prevalence rate of very low food security by about 0.4 percentage points. However, seasonal effects may have differed from State to State.

Table 7

Prevalence of household-level food insecurity and very low food security by State, average 2005-07¹

State	Number of households		Food insecurity (low or very low food security)		Very low food security	
	Average 2005-07 ²	Interviewed	Prevalence	Margin of error ³	Prevalence	Margin of error ³
	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>Percentage points</i>	<i>Percent</i>	<i>Percentage points</i>
U.S.	115,715,000	127,786	11.0	0.23	4.0	0.16
AK	245,000	1,653	12.4	1.51	4.8	1.06
AL	1,846,000	1,445	11.9	1.49	4.3	1.02
AR	1,138,000	1,482	14.4*	1.48	4.9	1.28
AZ	2,355,000	1,642	12.0	1.36	4.6	0.97
CA	12,881,000	9,523	10.2*	0.62	3.5*	0.45
CO	1,899,000	2,748	11.0	1.20	4.6	0.66
CT	1,393,000	2,610	8.8*	1.27	3.2*	0.60
DC	267,000	1,875	11.9	1.48	3.8	1.05
DE	336,000	1,961	8.6*	1.11	3.3*	0.67
FL	7,405,000	5,287	9.0*	0.69	3.4*	0.35
GA	3,602,000	2,635	13.0*	1.09	5.0	1.11
HI	454,000	1,789	8.4*	0.76	2.9*	0.56
IA	1,227,000	2,636	11.7	1.42	4.5	0.76
ID	535,000	1,534	11.4	1.34	3.4	1.06
IL	4,934,000	3,757	9.5*	1.01	3.5*	0.46
IN	2,491,000	2,089	10.2	1.31	3.6	0.80
KS	1,119,000	2,015	13.0*	1.42	4.7	1.01
KY	1,674,000	1,902	12.7*	1.53	4.5	0.79
LA	1,562,000	1,107	11.7	1.97	4.6	0.96
MA	2,476,000	1,938	8.0*	1.16	3.2*	0.73
MD	2,138,000	3,034	8.6*	0.87	3.4*	0.47
ME	542,000	2,623	13.3*	1.49	5.9*	1.02
MI	4,012,000	3,030	11.8	1.26	4.5	0.92
MN	2,092,000	3,260	9.5*	1.08	3.7	0.53
MO	2,405,000	2,328	12.9*	1.02	4.9*	0.63
MS	1,145,000	1,224	17.4*	2.20	7.0*	1.68
MT	425,000	1,553	9.5*	1.08	3.8	0.89
NC	3,500,000	2,599	12.6	1.71	4.0	0.95
ND	265,000	1,810	6.5*	1.09	2.2*	0.58
NE	711,000	2,010	9.5*	1.35	3.4	0.57
NH	514,000	2,796	7.7*	0.85	2.3*	0.49
NJ	3,177,000	2,297	8.8*	0.93	2.7*	0.49
NM	769,000	1,250	15.0*	2.22	4.9	1.29
NV	963,000	1,991	10.4	1.61	4.0	0.98
NY	7,541,000	5,025	9.9*	0.92	3.3*	0.34
OH	4,597,000	3,621	12.2	1.34	4.5	0.66
OK	1,392,000	1,712	13.0*	1.64	4.7*	0.61
OR	1,454,000	1,739	12.4	1.51	5.5*	0.71
PA	4,946,000	3,975	10.0*	1.01	3.4*	0.51
RI	431,000	2,127	10.9	1.43	3.9	0.82
SC	1,761,000	1,782	13.1*	1.08	5.0*	0.83
SD	325,000	2,186	9.7	1.42	3.6	0.84
TN	2,470,000	1,778	12.8	2.25	4.2	1.14
TX	8,509,000	6,099	14.8*	0.84	5.0*	0.41
UT	827,000	1,422	12.5	2.15	5.1	1.49
VA	2,917,000	2,713	8.0*	1.25	3.0*	0.65
VT	262,000	1,860	10.2	1.46	4.6	0.91
WA	2,532,000	2,232	10.1	1.47	3.5	0.85
WI	2,306,000	2,636	9.0*	0.80	3.5	0.56
WV	732,000	1,612	10.7	1.65	4.0	1.11
WY	215,000	1,834	9.9*	1.11	3.3	0.96

*Difference from U.S. average was statistically significant with 90 percent confidence ($t > 1.645$).

¹Prevalence 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. Comparable statistics for the earlier period are presented in table 8.

²Totals exclude households whose food security status is unknown because they did not give a valid response to any of the questions in the food security scale. These represented about 0.3 percent of all households in each year.

³Margin of error with 90 percent confidence (1.645 times the standard error of the estimated prevalence rate).

Source: Prepared by ERS using data from the December 2005, December 2006, and December 2007 Current Population Survey Food Security Supplements.

Table 8

Prevalence of household-level food insecurity and very low food security by State, 1996-98 (average), 2002-04 (average), and 2005-07 (average)¹

State	Food insecurity (low or very low food security)					Very low food security				
	Average	Average	Average	Change	Change	Average	Average	Average	Change	Change
	2005-07	2002-04	1996-98 ¹	2002-04 to 2005-07	1996-98 to 2005-07	2005-07	2002-04	1996-98 ¹	2002-04 to 2005-07	1996-98 to 2005-07
	Percent		Percentage points		Percent		Percentage points			
U.S.	11.0	11.4	11.3	-0.4*	-0.3	4.0	3.6	3.7	0.4*	0.3*
AK	12.4	11.7	8.7	0.7	3.7*	4.8	4.6	3.6	0.2	1.2
AL	11.9	12.2	12.5	-0.3	-0.6	4.3	2.9	3.3	1.4*	1.0
AR	14.4	14.8	13.7	-0.4	0.7	4.9	5.3	4.8	-0.4	0.1
AZ	12.0	12.7	14.6	-0.7	-2.6	4.6	3.5	4.3	1.1	0.3
CA	10.2	12.4	13.3	-2.2*	-3.1*	3.5	3.9	4.3	-0.4	-0.8*
CO	11.0	11.3	10.8	-0.3	0.2	4.6	3.5	3.8	1.1*	0.8*
CT	8.8	8.6	11.0	0.2	-2.2	3.2	3.0	4.1	0.2	-0.9
DC	11.9	10.2	13.7	1.7	-1.8	3.8	2.9	4.7	0.9	-0.9
DE	8.6	6.8	8.1	1.8*	0.5	3.3	1.8	2.9	1.5*	0.4
FL	9.0	10.8	13.2	-1.8*	-4.2*	3.4	3.6	4.5	-0.2	-1.1*
GA	13.0	12.3	10.9	0.7	2.1	5.0	3.8	3.4	1.2	1.6*
HI	8.4	8.5	12.9	-0.1	-4.5*	2.9	2.6	3.1	0.3	-0.2
IA	11.7	10.2	8.0	1.5	3.7*	4.5	3.1	2.6	1.4*	1.9*
ID	11.4	14.6	11.3	-3.2*	0.1	3.4	3.7	3.3	-0.3	0.1
IL	9.5	9.0	9.6	0.5	-0.1	3.5	3.0	3.2	0.5	0.3
IN	10.2	10.1	9.0	0.1	1.2	3.6	3.6	2.9	0.0	0.7
KS	13.0	12.3	11.5	0.7	1.5	4.7	4.8	4.2	-0.1	0.5
KY	12.7	12.2	9.7	0.5	3.0*	4.5	3.3	3.4	1.2*	1.1*
LA	11.7	11.8	14.4	-0.1	-2.7	4.6	2.6	4.4	2.0*	0.2
MA	8.0	7.1	7.5	0.9	0.5	3.2	2.7	2.1	0.5	1.1*
MD	8.6	8.6	8.7	0.0	-0.1	3.4	3.2	3.3	0.2	0.1
ME	13.3	9.8	9.8	3.5*	3.5*	5.9	3.1	4.0	2.8*	1.9*
MI	11.8	11.3	9.6	0.5	2.2*	4.5	3.8	3.1	0.7	1.4*
MN	9.5	7.2	8.6	2.3*	0.9*	3.7	2.5	3.1	1.2*	0.6
MO	12.9	11.3	10.1	1.6	2.8*	4.9	3.9	3.0	1.0*	1.9*
MS	17.4	15.8	14.6	1.6	2.8	7.0	4.5	4.2	2.5*	2.8*
MT	9.5	12.2	11.2	-2.7*	-1.7*	3.8	4.7	3.0	-0.9	0.8
NC	12.6	13.8	9.8	-1.2	2.8*	4.0	4.9	2.7	-0.9	1.3*
ND	6.5	6.3	5.5	0.2	1.0*	2.2	1.9	1.6	0.3	0.6
NE	9.5	10.7	8.7	-1.2	0.8	3.4	3.7	2.5	-0.3	0.9*
NH	7.7	6.4	8.6	1.3*	-0.9	2.3	2.4	3.1	-0.1	-0.8
NJ	8.8	8.5	8.9	0.3	-0.1	2.7	2.9	3.1	-0.2	-0.4
NM	15.0	15.8	16.5	-0.8	-1.5	4.9	4.9	4.8	0.0	0.1
NV	10.4	8.5	10.4	1.9*	0.0	4.0	2.9	4.0	1.1	0.0
NY	9.9	10.5	11.9	-0.6	-2.0*	3.3	3.2	4.1	0.1	-0.8*
OH	12.2	11.4	9.7	0.8	2.5*	4.5	3.4	3.5	1.1*	1.0*
OK	13.0	15.2	13.1	-2.2*	-0.1	4.7	5.6	4.2	-0.9	0.5
OR	12.4	11.9	14.2	0.5	-1.8	5.5	3.8	6.0	1.7*	-0.5
PA	10.0	10.2	8.3	-0.2	1.7*	3.4	2.9	2.6	0.5	0.8*
RI	10.9	12.1	10.2	-1.2	0.7	3.9	4.2	2.7	-0.3	1.2
SC	13.1	14.8	11.0	-1.7	2.1	5.0	5.5	3.5	-0.5	1.5*
SD	9.7	9.2	8.2	0.5	1.5*	3.6	2.8	2.2	0.8	1.4*
TN	12.8	11.5	11.8	1.3	1.0	4.2	3.5	4.4	0.7	-0.2
TX	14.8	16.4	15.2	-1.6*	-0.4	5.0	4.9	5.5	0.1	-0.5
UT	12.5	14.8	10.3	-2.3	2.2	5.1	4.6	3.1	0.5	2.0
VA	8.0	8.5	10.2	-0.5	-2.2	3.0	2.6	3.0	0.4	0.0
VT	10.2	9.0	8.8	1.2	1.4	4.6	3.6	2.7	1.0	1.9*
WA	10.1	12.0	13.2	-1.9*	-3.1*	3.5	4.3	4.7	-0.8	-1.2*
WI	9.0	9.0	8.5	0.0	0.5	3.5	2.8	2.6	0.7	0.9*
WV	10.7	8.8	9.5	1.9*	1.2	4.0	2.9	3.1	1.1	0.9
WY	9.9	11.0	9.9	-1.1	0.0	3.3	4.2	3.5	-0.9	-0.2

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

¹Statistics for 1996-98 were revised to account for changes in survey screening procedures introduced in 1998.

Source: Prepared by ERS based on Current Population Survey Food Security Supplement data.