### **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 2006 food security survey—the 12th annual survey in the Nation's food security monitoring system.

#### **Methods**

The statistics presented in this report are based on data collected in the Current Population Surveys' (CPS) food security surveys for 1995-2006. The CPS includes about 55,000 households<sup>2</sup> and is representative, at State and national levels, of the civilian, noninstitutionalized population of the United States. About 46,500 households completed the food security section of the survey in December 2006; 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.<sup>3</sup> All statistics in this report were calculated by applying the food security supplement weights to responses of the surveyed households to obtain nationally representative prevalence estimates. Household supplement weights were used to calculate household-level statistics and person supplement weights were used to calculate statistics for all individuals, for adults, and for children.

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. 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"). Responses to the 18 items used to classify households 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.<sup>5</sup>

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

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

<sup>4</sup>The methods used to measure the extent and severity of food insecurity have been described in several places (Hamilton et al., 1997a, 1997b; Andrews et al., 1998; Bickel et al., 1998; Carlson et al., 1999; Bickel et al., 2000; Nord and Bickel, 2002). See also the 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.

<sup>5</sup>To 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 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 are 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)

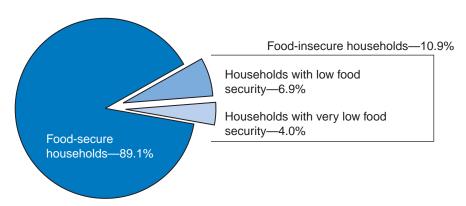
Food-insecure households are further classified as having either *low food security* or *very low food security*.<sup>6</sup> The very low food security category identifies households in which food intake of one or more members was reduced and eating patterns disrupted because of insufficient money and 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 but did not eat at some time during the year because there was not enough money for food.

### Prevalence of Food Insecurity— National Conditions and Trends

Slightly more than 89 percent of U.S. households were food secure throughout the entire year 2006 (fig. 1, table 1A). "Food secure" means that all household members had access at all times to enough food for an active, healthy life. The remaining 12.6 million U.S. households (10.9 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 4.6 million households

Figure 1 U.S. households by food security status, 2006



Source: Calculated by ERS using data from December 2006 Current Population Survey Food Security Supplement.

<sup>6</sup>Prior to 2006, households with low food security were described as "food insecure without hunger" and households with very low food security were described as "food insecure with hunger." Changes in these descriptions were made in 2006 at the recommendation of the Committee on National Statistics (National Research Council, 2006), in order to distinguish the physiological state of hunger from indicators of food availability. The criteria by which households were classified remained unchanged. See box "What Is 'Very Low Food Security'?" on page 5 for further information on these changes.

<sup>7</sup>Food 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.

### What Is "Very Low Food Security"?

The defining characteristic of very low food security (described as food insecurity with hunger prior to 2006) is that, at times during the year, the food intake of household members was reduced and their normal eating patterns were disrupted because the household lacked money and other resources for food. 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 2006 survey, *households classified as having very low food security* (representing an estimated 4.6 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.
- 94 percent reported that they could not afford to eat balanced meals.
- 95 percent reported that an adult had cut the size of meals or skipped meals because there was not enough money for food.
- 85 percent reported that this had occurred in 3 or more months.
- In 95 percent, respondents reported that they had eaten less than they felt they should because there was not enough money for food.
- In 69 percent, respondents reported that they had been hungry but did not eat because they could not afford enough food.
- In 46 percent, respondents reported having lost weight because they did not have enough money for food.
- 33 percent reported that an adult did not eat for a whole day because there was not enough money for food.
- 24 percent reported that this had occurred in 3 or more months.
- All of those without children reported at least six of these conditions, and 71 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 house-hold-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 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, 2006

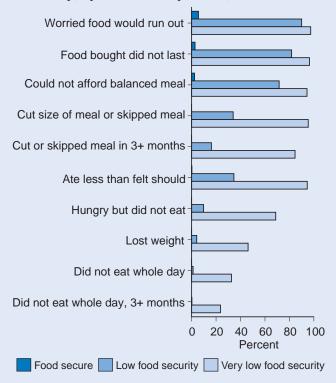


Table 1A Households and individuals by food security status of household, 1998-2006

						Food i	nsecure			
	,						With low		With very low	
Unit	Total <sup>1</sup>	Food	secure		All	food security		food security		
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent	
Households:										
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 fo										
status of household	,	050 405	07.0	0==4=	40.4	04005		44.400		
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 secustatus of household										
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>&</sup>lt;sup>1</sup>Totals 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 2006, these represented 377,000 households (0.3 percent of all households.)

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

<sup>&</sup>lt;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, in particular, are often protected from effects of the households' food insecurity.

(4.0 percent 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 households with very low food security—were protected from substantial reductions in food intake. However, in about 221,000 households (0.6 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 an average day during the 30-day period from mid-November to mid-December 2006 is estimated to have been between 0.5 and 0.8 percent

Table 1B Households with children, and children, by food security status of household, 1998-2006

		With Ic				With very low food security	
	Total <sup>1</sup>	Food	secure	food secur adults or	children	among children	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent
Households with children:							
2006	39,436	33,279	84.4	6,157	15.6	221	0.6
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 h	ousehold):2						
2006	73,587	60,959	82.8	12,628	17.2	430	0.6
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

<sup>&</sup>lt;sup>1</sup>Totals 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 2006, these represented 167,000 households (0.4 percent of all households with children.)

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

<sup>&</sup>lt;sup>2</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, in particular, are often protected from effects of the households' food insecurity.

of households (600,000 to 877,000 households), or about 13 to 19 percent of the annual rate (see box, "When Food Insecurity Occurs in U.S. Households, It Is Usually Recurrent but not Chronic").

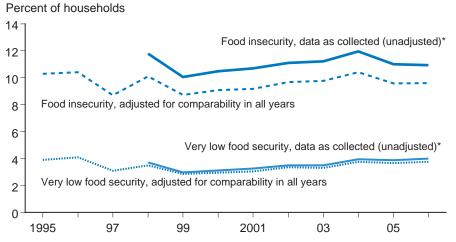
The prevalence of food insecurity in 2006 (10.9 percent of households) was essentially the same as in 2005 (11.0 percent) and lower than in 2004 (11.9 percent). The difference in the estimates for 2005 and 2006 is within the range that could have resulted from sampling variation. The prevalence of very low food security in 2006 (4.0 percent of households) was not significantly different from either 2005 or 2004 (both 3.9 percent). The prevalence of very low food security among children (0.6 percent) was also essentially unchanged from that in 2005 (0.7 percent). This rate has remained in the range of 0.5 to 0.7 percent (with no statistically significant changes) since 1999.

The prevalence of food insecurity in 2005 and 2006 was lower than in 2004, similar to the prevalence in 2001-03, and higher than the prevalence in 1999 and 2000 (fig. 2).8 The prevalence of very low food security has remained essentially unchanged since 2004 and is higher than during the period 1999-2003. From 1995-2000, the prevalence rates reflect an overall decline in food inscurity but also a 2-year cyclical component that is associated with data collection schedules (Cohen et al., 2002a). The CPS food security surveys over this period were conducted in 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.<sup>9</sup>

# 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

Figure 2
Trends in the prevalence of food insecurity in U.S. households, 1995-2006



\*Data as collected in 1995-97 are not directly comparable with data collected in 1998-2006.

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

<sup>8</sup>Because of changes in screening procedures used to reduce respondent burden, food security statistics from 1995-97 are not directly comparable with those from 1998-2006. Figure 2 presents statistics for the years 1995-2006, adjusted to be comparable across all years, as well as statistics for 1998-2006 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.

<sup>9</sup>A smaller food security survey was also conducted in April 2001 to provide a baseline for assessing seasonal effects of data collection in December. Comparison of food security statistics from the April 2001 survey with those from April 1999 and December 2001 suggest that seasonal effects in early December were similar to those in April (Nord et al., 2002a).

## 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 2006:

- About one-third 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 two-thirds, the conditions were recurring, experienced in 3 or more months of the year.
- For about one-fifth of food-insecure households and 30 percent of those with very low food security, occurrence of the associated conditions was frequent or chronic. That is, they occurred often, or in almost every month.
- On average, households that were food insecure at some time during the year were food insecure in 6 months during the year (see appendix E). During the 30-day period ending in mid-December 2006, 6.7 million households (5.8 percent) were food insecure—about 53 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 E). During the 30-day period ending in mid-December 2006, 2.8 million households (2.4 percent) had very low food security—about 60 percent of the number with very low food security at any time during the year.

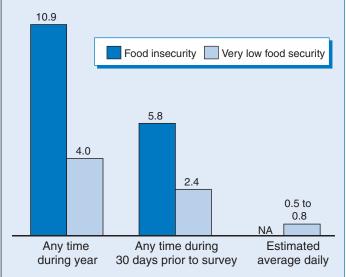
- Most households that had very low food security at some time during a month experienced the associated conditions in 1 to 7 days of the month. The average daily prevalence of very low food security during the 30-day period ending in mid-December 2006 was probably between 600,000 and 877,000 households (0.5 to 0.8 percent of all households)—about 13 to 19 percent of the annual prevalence.
- The daily prevalence of very low food security among children during the 30-day period ending in early December 2006 was probably between 29,000 and 33,000 households (0.07 to 0.08 percent of households with children)—about 13 to 15 percent of the annual prevalence.

The omission of homeless families and individuals from these daily statistics biases them 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 2006 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=Estimate of average daily occurrence not available.

Table 2
Households by food security status and selected household characteristics, 2006

						Food insecure			
Category	Total <sup>1</sup>	Food	secure	All		With low food security			ery low security
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All households	115,609	102,961	89.1	12,648	10.9	8,031	6.9	4,617	4.0
Household composition:									
With children < 18	39,436	33,278	84.4	6,158	15.6	4,481	11.4	1,677	4.3
With children < 6	17,161	14,295	83.3	2,866	16.7	2,141	12.5	725	4.2
Married-couple families	26,614	23,916	89.9	2,698	10.1	2,140	8.0	558	2.1
Female head, no spouse	9,572	6,665	69.6	2,907	30.4	1,925	20.1	982	10.3
Male head, no spouse	2,618	2,174	83.0	444	17.0	333	12.7	111	4.2
Other household with child <sup>2</sup>	633	522	82.5	111	17.5	84	13.3	27	4.3
With no children < 18	76,173	69,683	91.5	6,490	8.5	3,550	4.7	2,940	3.9
More than one adult	44,742	41,822	93.5	2,920	6.5	1,769	4.0	1,151	2.6
Women living alone	17,587	15,600	88.7	1,987	11.3	971	5.5	1,016	5.8
Men living alone	13,844	12,261	88.6	1,583	11.4	810	5.9	773	5.6
With elderly	26,840	25,242	94.0	1,598	6.0	1,108	4.1	490	1.8
Elderly living alone	10,499	9,880	94.1	619	5.9	394	3.8	225	2.1
Race/ethnicity of households:									
White non-Hispanic	82,268	75,810	92.2	6,458	7.8	3,937	4.8	2,521	3.1
Black non-Hispanic	14,054	10,991	78.2	3,063	21.8	1,944	13.8	1,119	8.0
Hispanic <sup>3</sup>	12,879	10,367	80.5	2,512	19.5	1,780	13.8	732	5.7
Other	6,409	5,793	90.4	616	9.6	370	5.8	246	3.8
Household income-to-poverty ratio	):								
Under 1.00	11,829	7,533	63.7	4,296	36.3	2,540	21.5	1,756	14.8
Under 1.30	16,830	11,265	66.9	5,565	33.1	3,363	20.0	2,202	13.1
Under 1.85	27,613	20,075	72.7	7,538	27.3	4,593	16.6	2,945	10.7
1.85 and over	64,495	61,059	94.7	3,436	5.3	2,364	3.7	1,072	1.7
Income unknown	23,500	21,826	92.9	1,674	7.1	1,074	4.6	600	2.6
Area of residence: <sup>4</sup>									
Inside metropolitan area	96,192	85,870	89.3	10,322	10.7	6,557	6.8	3,765	3.9
In principal cities <sup>5</sup>	32,054	27,832	86.8	4,222	13.2	2,622	8.2	1,600	5.0
Not in principal cities	47,541	43,243	91.0	4,298	9.0	2,793	5.9	1,505	3.2
Outside metropolitan area	19,417	17,091	88.0	2,326	12.0	1,474	7.6	852	4.4
Census geographic region:									
Northeast	21,302	19,343	90.8	1,959	9.2	1,195	5.6	764	3.6
Midwest	26,560	23,717	89.3	2,843	10.7	1,804	6.8	1,039	3.9
South	42,283	37,099	87.7	5,184	12.3	3,361	7.9	1,823	4.3
West	25,464	22,802	89.5	2,662	10.5	1,671	6.6	991	3.9

<sup>&</sup>lt;sup>1</sup>Totals 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 2006, these represented 377,000 households (0.3 percent of all households)

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

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

<sup>&</sup>lt;sup>4</sup>Metropolitan 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 2005 but are not precisely comparable with those of earlier years.

<sup>&</sup>lt;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 17 percent of households in metropolitan statistical areas.

of 10.9 percent for households with more than one adult and no children (6.5 percent) and for households with elderly persons (6.0 percent). Rates of food insecurity substantially higher than the national average were registered by the following groups:

- households with incomes below the official poverty line (36.3 percent), 11
- households with children, headed by single women (30.4 percent) or single men (17.0 percent),
- Black households (21.8 percent), and
- Hispanic households (19.5 percent).

Overall, households with children reported food insecurity at about double the rate for households without children (15.6 vs. 8.5 percent). Among households with children, those headed by a married couple showed the lowest rate of food insecurity (10.1 percent).

The prevalence rates of food insecurity for households located in principal cities of metropolitan areas (13.2 percent) and in nonmetropolitan areas (12.0 percent) substantially exceeded the rate for households in suburbs and other metropolitan areas outside principal cities (9.0 percent). <sup>13</sup> Regionally, the prevalence of food insecurity was higher than the national average in the South (12.3 percent) and lower than the national average in the Northeast (9.2 percent), while prevalence rates in the Midwest (10.7 percent) and West (10.5 percent) were near the national average.

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 (2.1 percent), multiple-adult households with no children (2.6 percent), and households with elderly persons (1.8 percent). Very low food security was more prevalent than the national average (4.0 percent) among households with children headed by single women (10.3 percent), women living alone (5.8 percent), men living alone (5.6 percent), Black and Hispanic households (8.0 and 5.7 percent, respectively), households with incomes below the poverty line (14.8 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 Black non-Hispanic person and those in households with incomes below 185 percent of the poverty line.

The prevalence of food insecurity was essentially unchanged from 2005 to 2006 in all categories analyzed for this report (fig. 3). The prevalence of very low food security increased from 2005 to 2006 for households with children headed by single women and for households in the Northeast Census region (fig. 4). Changes in other categories were within a range that could have resulted from sampling variation.

<sup>10</sup>"Elderly" in this report refers to persons ages 65 and older.

<sup>11</sup>The Federal poverty line was \$20,444 for a family of four in 2006.

<sup>12</sup>The 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, households with children were 47 percent more likely to be food insecure than were households without children. This measurement issue does not bias comparisons of very low food security because a higher threshold is applied to households with children consistent with the larger number of questions taken into consideration.

<sup>13</sup>Revised 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 2005, 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 3

Prevalence of food security and food insecurity in households with children by selected household characteristics, 2006

Category	Total <sup>1</sup>		secure eholds	Food-insecure households <sup>2</sup>		louseholds with very low food security among children	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent
All households with children	39,436	33,279	84.4	6,157	15.6	221	0.6
Household composition:							
With children < 6	17,161	14,295	83.3	2,866	16.7	57	.3
Married-couple families	26,614	23,916	89.9	2,698	10.1	81	.3
Female head, no spouse	9,572	6,666	69.6	2,906	30.4	126	1.3
Male head, no spouse	2,618	2,175	83.1	443	16.9	14	.5
Other household with child <sup>3</sup>	633	523	82.6	110	17.4	0	0.0
Race/ethnicity of households:							
White non-Hispanic	24,474	21,702	88.7	2,772	11.3	71	.3
Black non-Hispanic	5,515	4,059	73.6	1,456	26.4	77	1.4
Hispanic <sup>4</sup>	6,924	5,279	76.2	1,645	23.8	57	.8
Other	2,524	2,240	88.7	284	11.3	16	.6
Household income-to-poverty ratio:							
Under 1.00	5,394	3,071	56.9	2,323	43.1	108	2.0
Under 1.30	7,146	4,207	58.9	2,939	41.1	123	1.7
Under 1.85	11,555	7,559	65.4	3,996	34.6	163	1.4
1.85 and over	21,179	19,748	93.2	1,431	6.8	36	.2
Income unknown	6,701	5,971	89.1	730	10.9	22	.3
Area of residence: <sup>5</sup>							
Inside metropolitan area	33,180	28,118	84.7	5,062	15.3	184	.6
In principal cities <sup>6</sup>	10,474	8,521	81.4	1,953	18.6	76	.7
Not in principal cities	17,115	14,857	86.8	2,258	13.2	92	.5
Outside metropolitan area	6,256	5,161	82.5	1,095	17.5	37	.6
Census geographic region:							
Northeast	7,024	6,116	87.1	908	12.9	30	.4
Midwest	8,681	7,381	85.0	1,300	15.0	38	.4
South	14,458	11,872	82.1	2,586	17.9	93	.6
West	9,273	7,909	85.3	1,364	14.7	60	.6
Individuals in households with children:							
All individuals in households with children	158,571	133,681	84.3	24,890	15.7	871	.5
Adults in households with children	84,984	72,722	85.6	12,262	14.4	441	.5
Children	73,587	60,959	82.8	12,628	17.2	430	.6

<sup>&</sup>lt;sup>1</sup>Totals 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 2006, these represented 167,000 households with children (0.4 percent.)

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

<sup>&</sup>lt;sup>3</sup>Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

<sup>&</sup>lt;sup>4</sup>Hispanics may be of any race.

<sup>&</sup>lt;sup>5</sup>Metropolitan 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 2005 but are not precisely comparable with those of earlier years.

<sup>&</sup>lt;sup>6</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 17 percent of households in metropolitan statistical areas.

Figure 3 Prevalence of food insecurity, 2005 and 2006 All households Household composition: With children < 18 2005 With children < 6 2006 Married-couple families Female head, no spouse Male head, no spouse With no children < 18 More than one adult Women living alone Men living alone With elderly Elderly living alone Race/ethnicity of households: White non-Hispanic Black non-Hispanic Hispanic Other Household income-to-poverty ratio: Under 1.00 Under 1.30 **Under 1.85** 1.85 and over Area of residence: Inside metropolitan area In principal cities Not in principal cities Outside metropolitan area Census geographic region: Northeast Midwest South West 0 5 10 15 20 25 30 35 40 Percent of households Source: Calculated by ERS based on Current Population Survey Food Security Supplement data, December 2005 and December 2006.

Figure 4 Prevalence of very low food insecurity, 2005 and 2006 All households -Household composition: 2005 With children < 18 2006 With children < 6 Married-couple families Female head, no spouse Male head, no spouse With no children < 18-More than one adult -Women living alone -Men living alone -With elderly Elderly living alone Race/ethnicity of households: White non-Hispanic Black non-Hispanic Hispanic -Other Household income-to-poverty ratio: Under 1.00 Under 1.30 Under 1.85 1.85 and over Area of residence: Inside metropolitan area In principal incorporated cities Not in principal incorporated cities Outside metropolitan area Census geographic region: Northeast Midwest South West 0 2 10 6 8 12 14 16 Percent of households Source: Calculated by ERS based on Current Population Survey Food Security Supplement

data, December 2005 and December 2006.

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### Food Insecurity in Low-Income Households

Food insecurity is by definition a condition that results from insufficient household resources. In 2006, 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. <sup>14</sup> One in three of these low-income households was food insecure, including 13.1 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 (41.1 percent vs. 27.1 percent), but were less likely to have very low food security (12.0 percent vs. 13.9 percent). Low-income households with children headed by single women were especially vulnerable to food insecurity (46.0 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 2006, 35.5 million people lived in food-insecure households (table 1A). They constituted 12.1 percent of the U.S. civilian noninstitutionalized population and included 22.9 million adults and 12.6 million children. Of these individuals, 7.7 million adults and 3.4 million children lived in households with very low food security, and 430,000 children (0.6 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.

<sup>14</sup>Households 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.

Table 4
Households with income below 130 percent of the poverty line by food security status and selected household characteristics, 2006

				-		Food in	secure			
Category	Total <sup>1</sup>	Food secure		А	All		n low security		ery low security	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent	
All low-income households	16,830	11,265	66.9	5,565	33.1	3,363	20.0	2,202	13.1	
Household composition:										
With children < 18	7,146	4,206	58.9	2,940	41.1	2,083	29.1	857	12.0	
With children < 6	3,783	2,319	61.3	1,464	38.7	1,056	27.9	408	10.8	
Married-couple families	2,820	1,811	64.2	1,009	35.8	778	27.6	231	8.2	
Female head, no spouse	3,661	1,976	54.0	1,685	46.0	1,130	30.9	555	15.2	
Male head, no spouse	517	316	61.1	201	38.9	142	27.5	59	11.4	
Other household with child <sup>2</sup>	147	103	70.1	44	29.9	33	22.4	11	7.5	
With no children < 18	9,684	7,058	72.9	2,626	27.1	1,281	13.2	1,345	13.9	
More than one adult	3,975	2,927	73.6	1,048	26.4	600	15.1	448	11.3	
Women living alone	3,415	2,545	74.5	870	25.5	378	11.1	492	14.4	
Men living alone	2,294	1,585	69.1	709	30.9	303	13.2	406	17.7	
With elderly	3,938	3,244	82.4	694	17.6	471	12.0	223	5.7	
Elderly living alone	2,335	2,050	87.8	285	12.2	175	7.5	110	4.7	
Race/ethnicity of households:										
White non-Hispanic	8,685	6,240	71.8	2,445	28.2	1,352	15.6	1,093	12.6	
Black non-Hispanic	3,679	2,117	57.5	1,562	42.5	964	26.2	598	16.3	
Hispanic <sup>3</sup>	3,456	2,177	63.0	1,279	37.0	888	25.7	391	11.3	
Other	1,010	731	72.4	279	27.6	159	15.7	120	11.9	
Area of residence:4										
Inside metropolitan area	12,873	8,464	65.8	4,409	34.2	2,671	20.7	1,738	13.5	
In principal cities <sup>5</sup>	5,659	3,721	65.8	1,938	34.2	1,172	20.7	766	13.5	
Not in principal cities	4,607	2,977	64.6	1,630	35.4	1,011	21.9	619	13.4	
Outside metropolitan area	3,957	2,801	70.8	1,156	29.2	692	17.5	464	11.7	
Census geographic region:										
Northeast	2,506	1,754	70.0	752	30.0	421	16.8	331	13.2	
Midwest	3,648	2,451	67.2	1,197	32.8	697	19.1	500	13.7	
South	7,111	4,655	65.5	2,456	34.5	1,558	21.9	898	12.6	
West	3,565	2,406	67.5	1,159	32.5	687	19.3	472	13.2	
Individuals in low-income househol										
(by food security status of househ	old):									
All individuals in low-income	44.407	00.040	00.0	40.005	20.0	40 777	04.0	F 040	40.0	
households	44,437	28,342	63.8	16,095	36.2	10,777	24.3	5,318	12.0	
Adults in low-income	00.074	40.000	00.7	0.040	00.0	0.407	04.4	0.445	44.0	
households	28,971	19,329	66.7	9,642	33.3	6,197	21.4	3,445	11.9	
Children in low-income	45 466	0.040	F0.0	0.450	44.7	4.500	20.0	4.070	40.4	
households	15,466	9,013	58.3	6,453	41.7	4,580	29.6	1,873	12.1	

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

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

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

<sup>&</sup>lt;sup>4</sup>Metropolitan 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 2005 but are not precisely comparable with those of earlier years.

<sup>&</sup>lt;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 20 percent of low-income households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2006 Current Population Survey Food Security Supplement.

Table 5

Number of individuals by food security status of households and selected household characteristics, 2006

				In food-insecure households					
Category	Total <sup>1</sup>		In food-secure households		All		In households with low food security		seholds ery low security
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All individuals in households	294,010	258,495	87.9	35,515	12.1	24,395	8.3	11,120	3.8
Household composition:									
With children < 18	158,571	133,681	84.3	24,890	15.7	18,297	11.5	6,593	4.2
With children < 6	73,037	60,416	82.7	12,621	17.3	9,387	12.9	3,234	4.4
Married-couple families	114,138	101,661	89.1	12,477	10.9	9,891	8.7	2,586	2.3
Female head, no spouse	33,210	22,880	68.9	10,330	31.1	6,842	20.6	3,488	10.5
Male head, no spouse	8,941	7,279	81.4	1,662	18.6	1,234	13.8	428	4.8
Other household with child <sup>2</sup>	2,283	1,861	81.5	422	18.5	331	14.5	91	4.0
With no children < 18	135,439	124,815	92.2	10,624	7.8	6,097	4.5	4,527	3.3
More than one adult	104,008	96,954	93.2	7,054	6.8	4,316	4.1	2,738	2.6
Women living alone	17,587	15,600	88.7	1,987	11.3	971	5.5	1,016	5.8
Men living alone	13,844	12,261	88.6	1,583	11.4	810	5.9	773	5.6
With elderly	52,014	48,357	93.0	3,657	7.0	2,714	5.9	943	1.8
Elderly living alone	10,499	9,880	94.1	619	7.0 5.9	394	3.8	225	2.1
	10,433	3,000	04.1	010	0.0	004	0.0	220	2.1
Race/ethnicity of households:									
White non-Hispanic	197,978	181,526	91.7	16,452	8.3	10,955	5.5	5,497	2.8
Black non-Hispanic	35,540	27,396	77.1	8,144	22.9	5,460	15.4	2,684	7.6
Hispanic <sup>3</sup>	42,481	33,477	78.8	9,004	21.2	6,825	16.1	2,179	5.1
Other	18,012	16,097	89.4	1,915	10.6	1,154	6.4	761	4.2
Household income-to-poverty ratio	):								
Under 1.00	31,811	19,421	61.1	12,390	38.9	8,100	25.5	4,290	13.5
Under 1.30	44,437	28,342	63.8	16,095	36.2	10,777	24.3	5,318	12.0
Under 1.85	73,425	51,566	70.2	21,859	29.8	14,723	20.1	7,136	9.7
1.85 and over	163,620	154,855	94.6	8,765	5.4	6,437	3.9	2,328	1.4
Income unknown	56,966	52,076	91.4	4,890	8.6	3,234	5.7	1,656	2.9
Area of residence: <sup>4</sup>									
Inside metropolitan area	246,311	217,008	88.1	29,303	11.9	20,178	8.2	9,125	3.7
In principal cities <sup>5</sup>	78,819	67,157	85.2	11,662	14.8	7,843	10.0	3,819	4.8
Not in principal cities	126,436	113,534	89.8	12,902	10.2	9,062	7.2	3,840	3.0
Outside metropolitan area	47,699	41,487	87.0	6,212	13.0	4,217	8.8	1,995	4.2
Census geographic region:									
Northeast	53,682	48,532	90.4	5,150	9.6	3,497	6.5	1,653	3.1
Midwest	65,246	57,730	88.5	7,516	11.5	5,198	8.0	2,318	3.6
South	106,847	92,245	86.3	14,602	13.7	10,051	9.4	4,551	4.3
West	68,234	59,986	87.9	8,248	12.1	5,649	8.3	2,599	3.8

<sup>&</sup>lt;sup>1</sup>Totals 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 2006, these represented 1,048,000 individuals (0.4 percent of all individuals.)

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

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

<sup>&</sup>lt;sup>4</sup>Metropolitan 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 2005 but are not precisely comparable with those of earlier years.

<sup>&</sup>lt;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 17 percent of individuals living in metropolitan statistical areas.

Table 6

Number of children by food security status of households and selected household characteristics, 2006

Category	Total <sup>1</sup>		-secure eholds		insecure holds <sup>2</sup>	In households with very low food security among children		
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	
All children	73,587	60,959	82.8	12,628	17.2	430	0.6	
Household composition:								
With children < 6	36,474	29,675	81.4	6,799	18.6	147	.4	
Married-couple families	51,388	45,494	88.5	5,894	11.5	124	.2	
Female head, no spouse	17,488	11,672	66.7	5,816	33.3	281	1.6	
Male head, no spouse	3,876	3,120	80.5	756	19.5	25	.6	
Other household with child <sup>3</sup>	836	675	80.7	161	19.3	0	0.0	
Race/ethnicity of households:								
White non-Hispanic	44,508	39,258	88.2	5,250	11.8	142	.3	
Black non-Hispanic	10,722	7,585	70.7	3,137	29.3	166	1.5	
Hispanic <sup>4</sup>	13,826	10,226	74.0	3,600	26.0	98	.7	
Other	4,532	3,891	85.9	641	14.1	24	.5	
Household income-to-poverty ratio:								
Under 1.00	11,786	6,643	56.4	5,143	43.6	250	2.1	
Under 1.30	15,466	9,013	58.3	6,453	41.7	282	1.8	
Under 1.85	24,133	15,609	64.7	8,524	35.3	344	1.4	
1.85 and over	37,203	34,731	93.4	2,472	6.6	58	.2	
Income unknown	12,251	10,619	86.7	1,632	13.3	28	.2	
Area of residence: <sup>5</sup>								
Inside metropolitan area	62,293	51,736	83.1	10,557	16.9	368	.6	
In principal cities <sup>6</sup>	19,739	15,569	78.9	4,170	21.1	143	.7	
Not in principal cities	32,455	27,724	85.4	4,731	14.6	188	.6	
Outside metropolitan area	11,294	9,222	81.7	2,072	18.3	63	.6	
Census geographic region:								
Northeast	12,611	10,809	85.7	1,802	14.3	64	.5	
Midwest	16,057	13,411	83.5	2,646	16.5	89	.6	
South	26,909	21,729	80.7	5,180	19.3	160	.6	
West	18,009	15,010	83.3	2,999	16.7	117	.6	

<sup>&</sup>lt;sup>1</sup>Totals 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 2006, these represented 315,000 children (0.4 percent.)

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

<sup>&</sup>lt;sup>3</sup>Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

<sup>&</sup>lt;sup>4</sup>Hispanics may be of any race.

<sup>&</sup>lt;sup>5</sup>Metropolitan 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 2005, but are not precisely comparable with those of earlier years.

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

Source: Calculated by ERS using data from the December 2006 Current Population Survey Food Security Supplement.

# Prevalence of Food Insecurity by State, Average 2004-06

The prevalence of food insecurity varied considerably from State to State. Data for 3 years, 2004-06, were combined to provide more reliable statistics at the State level (table 7). Measured prevalence rates of food insecurity during this 3-year period ranged from 6.4 percent in North Dakota to 18.1 percent in Mississippi; measured prevalence rates of very low food security ranged from 2.1 percent in New Jersey to 6.4 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 margin of error, it is not certain that the rate of very low food insecurity was higher in Mississippi than in the States with the next three highest prevalence rates.

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 15 States and the District of Columbia, and lower than the national average in 20 States. In the remaining 14 States, differences from the national average were not statistically significant. The prevalence of very low food security was higher than the national average in 12 States, lower than the national average in 16 States, and not significantly different from the national average in 22 States and the District of Columbia.

The 2004-06 State-level food security statistics are compared with those for 2001-03 and 1996-98 in appendix D. The 1996-98 statistics originally published by ERS in *Prevalence of Food Insecurity and Hunger, by State, 1996-1998* (Nord et al., 1999) cannot be compared directly with those for later years because of changes over the years in screening procedures used to reduce respondent burden in the food security surveys. The 1996-98 statistics presented in appendix D have been adjusted for these screening differences.

Table 7

Prevalence of household-level food insecurity and very low food security by State, average 2004-06<sup>1</sup>

		of households		d insecurity y low food security)	Very low food security		
State	Average 2004-06 <sup>2</sup>	Interviewed	Prevalence	Margin of error <sup>3</sup>	Prevalence	Margin of error <sup>3</sup>	
	Number	Number	Percent	Percentage points	Percent	Percentage points	
U.S.	114,338,000	141,683	11.3	0.26	3.9	0.14	
AK	243,000	1,785	12.6	1.36	5.1*	0.71	
AL	1,831,000	1,685	12.1	1.55	3.3	1.10	
AR	1,125,000	1,687	14.3*	1.17	5.8*	1.04	
AZ	2,216,000	1,868	13.1*	1.55	4.3	0.72	
CA	12,807,000	10,155	10.9	0.73	3.7	0.45	
CO	1,874,000	2,988	12.0	1.31	4.4	0.65	
CT	1,386,000	2,758	8.6*	0.95	2.7*	0.46	
DC	266,000	1,970	12.5*	0.90	3.8	0.84	
DE	328,000	2,118	7.8*	1.43	2.6*	0.61	
FL	7,242,000	5,893	8.9*	0.56	3.1*	0.24	
GA	3,523,000	2,844	12.6	1.65	5.0*	0.89	
HI	448,000	1,843	7.8*	0.59	2.8*	0.62	
IA	1,210,000	2,857	11.4	1.33	3.9	0.58	
ID	526,000	1,696	12.7*	0.88	3.5	0.59	
IL	4,937,000	4,373	9.8*	0.85	3.5*	0.34	
IN	2,480,000	2,453	10.8	1.44	4.0	0.57	
KS	1,098,000	2,303	12.5*	0.80	4.5*	0.34	
KY	1,690,000	2,064	13.6*	1.66	4.6*	0.66	
LA	1,585,000	1,251	14.4*	1.41	5.0	1.24	
MA	2,492,000	2,246	8.1*	0.83	3.0*	0.47	
MD	2,125,000	3,119	9.5*	1.13	3.9	0.45	
ME	545,000	2,945	12.9*	1.04	5.3*	0.79	
MI	3,985,000	3,529	12.2	1.19	4.6	0.80	
MN	2,043,000	3,415	8.2*	0.94	3.2*	0.48	
MO	2,383,000	2,598	12.3	1.12	4.4*	0.46	
MS	1,103,000	1,312	18.1*	1.87	6.4*	0.80	
MT	412,000	1,697	9.9	1.44	4.3	0.59	
NC		2,939	12.9*	1.24	4.3		
ND	3,426,000		6.4*	0.94	2.2*	0.64 0.53	
NE	262,000 709,000	2,048 2,323	9.5*	1.68	3.8	0.53	
					3.6 2.2*		
NH	509,000	2,889	7.4* 7.7*	0.94	2.2 2.1*	0.38	
NJ	3,172,000	2,660		0.87	2.1 5.8*	0.41	
NM	770,000	1,453	16.1*	2.00		1.16	
NV	923,000	2,232	8.8*	0.66	3.2*	0.41	
NY	7,468,000	5,726	9.8*	0.47	3.2*	0.26	
OH	4,617,000	4,180	12.7*	0.89	4.1	0.40	
OK	1,401,000	1,884	14.6*	1.36	5.3*	0.68	
OR	1,434,000	1,997	11.9	1.32	4.4	0.82	
PA	4,916,000	4,604	10.0*	0.78	3.3*	0.33	
RI	429,000	2,407	11.3	1.26	3.7	0.65	
SC	1,703,000	1,991	14.7*	1.58	5.9*	0.69	
SD	324,000	2,392	9.5*	0.69	3.3*	0.51	
TN	2,418,000	1,967	12.5	1.72	4.3	0.83	
TX	8,371,000	6,567	15.9*	0.50	5.3*	0.30	
UT	806,000	1,629	14.5*	1.69	5.1	1.65	
VA	2,827,000	2,939	7.9*	0.86	2.8*	0.49	
VT	261,000	2,116	9.6*	1.29	4.3	0.88	
WA	2,492,000	2,523	10.3	1.51	3.6	0.80	
WI	2,253,000	2,925	8.9*	0.99	2.7*	0.44	
WV	733,000	1,808	9.3*	0.68	3.2	0.77	
WY	209,000	2,032	10.6	0.98	3.7	0.87	

<sup>\*</sup>Difference from U.S. average was statistically significant with 90 percent confidence (t > 1.645).

Source: Prepared by ERS using data from the December 2004, December 2005, and December 2006 Current Population Survey Food Security Supplements.

<sup>&</sup>lt;sup>1</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. Comparable statistics for the earlier period are presented in appendix D.

<sup>&</sup>lt;sup>2</sup>Totals 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.

<sup>&</sup>lt;sup>3</sup>Margin of error with 90 percent confidence (1.645 times the standard error of the estimated prevalence rate).