

Section 1. 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, food insecurity, and hunger in U.S. households based on the December 2001 food security survey—the seventh annual survey in the Nation’s food security monitoring system.

Methods

The results presented in all three sections of this report are based on data collected in the Current Population Survey (CPS) food security surveys for the years 1995-2001. The statistics presented in section 1 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.² Each question asks whether the condition or behavior occurred during the previous 12 months and specifies a lack of money or other resources to obtain food as the reason for the condition or behavior. Voluntary fasting or dieting to lose weight is thereby excluded from the measure. Response frequencies for the 18 items used to classify households are provided in appendix A. Full-question wordings are presented in Bickel et al., 2000, and are available from the ERS Food Security Briefing Room at <http://www.ers.usda.gov/briefing/foodsecurity/>

Interviewed households are classified into one of three categories—food secure, food insecure without hunger, food insecure with hunger—based on the number of

²The methods used to measure the extent of food insecurity and hunger 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). Further details on the development of the measure are provided in appendix B.

Examples of Questions from the CPS Food Security Survey

“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?

“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?

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?

In the last 12 months were you ever hungry, but didn't eat, because you couldn't afford enough food?

(For households with children) 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?

food-insecure conditions and behaviors the household reported. Households classified as food insecure with hunger that include children are further classified as to whether both children and adults were hungry or only adults. The presence of hunger among children in food-insecure households is measured by a subset of the food security questions that ask specifically about the conditions and experiences of children (Nord and Bickel, 2002). Appropriate weighting factors are then applied to the surveyed households to obtain nationally representative prevalence estimates.

Prevalence of Food Insecurity and Hunger—National Conditions and Trends

Eighty-nine percent of U.S. households were food secure throughout the entire year 2001. “Food secure” means that all household members had access at all times to enough food for an active, healthy life. The remaining 11.5 million U.S. households (10.7 percent of all households) were food insecure at some time during the year. That is, they were uncertain of having, or unable to acquire, enough food to meet basic needs for all household members because they had insufficient money and other resources for food. About two-thirds of food-insecure households avoided hunger, in many cases by relying on a few basic foods and reducing variety in their diets. But 3.5 million households (3.3 percent of all U.S. households) were food insecure to the extent that one or more household members were hungry, at least some time during the year, because they couldn’t afford enough food. In most households, children were protected from substantial reductions in food intake and ensuing hunger. However, in some 211,000 households (0.6 percent of households with children) food insecurity was sufficiently severe that one or more children in each household were also hungry on one or more days during the year because the household lacked money for enough food. In some households with more than one child, not all the children experienced hunger. In particular, younger children are often protected from hunger even when older children are not.

When interpreting food security statistics, it is important to keep in mind that households are classified as food insecure, or food insecure with hunger if they experienced the condition at any time during the previous 12 months. The rates of food insecurity and hunger on any given day are far below the annual rates. For example, the prevalence of hunger on a typical day is estimated to be about 13 to 18 percent of the annual rate (see box), or 0.4 to 0.6 percent of households (460,000 to 630,000 households) on a typical day in 2001.

How often were people hungry in households with hunger?

When poverty-linked hunger occurs in the United States, it is, in most cases, occasional or episodic, not chronic. The food security scale on which the statistics in this report are based is designed to register these occasional or episodic occurrences. Most of the questions ask whether a condition, experience, or behavior occurred at any time in the past 12 months. Three of the questions ask how many months a specific condition or behavior occurred, but households can be classified as food insecure or hungry based on a single, severe episode during the year. It is important to keep this aspect of the scale in mind when interpreting food security and hunger statistics. ERS analysis of CPS Food Security Supplement data has found that:

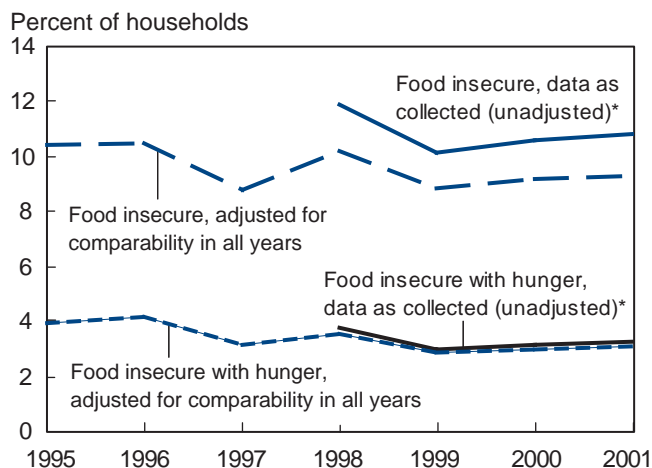
- About one-third of the hunger measured by the standard 12-month measure is rare or occasional, occurring in only 1 or 2 months of the year. Two-thirds is recurring, experienced in 3 or more months of the year.
- For about one-fifth of households classified as food insecure and one-fourth of those classified as hungry, occurrence of the condition was frequent or chronic. That is, it occurred often, or in almost every month.
- The monthly prevalence of resource-constrained hunger in the United States is about 70 percent of the annual prevalence, and the daily prevalence of hunger is 13 to 18 percent of the annual prevalence.

(Appendix A provides information on how often conditions indicating food insecurity and hunger occurred as reported by respondents to the December 2001 food security survey. See Nord et al., 2000, for further information about the frequency of food insecurity and hunger.)

The prevalence of food insecurity and hunger increased somewhat from 1999 to 2001 after having declined from 1995 to 1999 (fig. 1).³ The year-to-year deviations from a consistent downward trend from 1995 to 2000 included a substantial 2-year cycle that is believed to result from a seasonal influence on food security prevalence rates (Cohen et al., 2002b). The CPS food security surveys over this period were conducted in April in odd-numbered years and August or September in even-numbered years. Measured prevalence of food insecurity was higher in the August/September collections, suggesting a seasonal response effect. In 2001, the survey was conducted in early December. Data collection is planned for December in future years, which will avoid further

³Because of changes in screening procedures used to reduce respondent burden, food security statistics from 1995 to 1997 are not directly comparable with those from 1998 to 2001. Figure 1 presents statistics for the years 1995 to 2001, adjusted to be comparable across all years, as well as statistics for 1998 to 2001 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.

Figure 1
Trends in prevalence of food insecurity and hunger in U.S. households, 1995-2001



*Data as collected in 1995-97 are not directly comparable with data collected in 1998-2001.

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

problems of seasonality effects in interpreting annual changes.

A smaller food security survey was also conducted in April 2001 to provide information to bridge the new December series to the previous years' statistics, since seasonal effects of conducting the survey in December were unknown. Comparison of food security statistics from the April 2001 survey with those from April 1999 and December 2001 suggests that seasonal effects in early December were similar to those in April. At the national level, the measured prevalence of food insecurity was slightly higher and the prevalence of hunger was slightly lower in the December 2001 survey than in the April 2001 survey, but the differences were not statistically significant. From April 1999 to April 2001, prevalences of both food insecurity and hunger increased, and these increases were statistically significant.⁴ Thus, the April 2001 survey confirms that the observed increases in food insecurity and hunger from April 1999 to December 2001 represented genuine changes from 1999 to 2001 and were not artifacts of the month in which surveys were conducted. Throughout this section, therefore, statistics from the December 2001 survey are compared with those from April 1999.

The prevalence of food insecurity rose from 10.1 percent in 1999 to 10.7 percent in 2001 and the prevalence of food insecurity with hunger rose from 3.0 percent to 3.3 percent (table 1). The number of food-insecure households increased from 10.5 million in 1999 to 11.5 million in 2001, an increase of 9.4 percent, and the number of households that were food insecure with hunger rose from 3.1 million to 3.5 million during the 2-year period, an increase of 12.9 percent. (During this period, the total number of households in the Nation grew by 3.0 percent.) The prevalence of food insecurity with hunger among children was unchanged from 1999 to 2001.

⁴Prevalence rates of food insecurity were 10.1 percent in April 1999, 10.6 percent in April 2001, and 10.7 percent in December 2001; corresponding rates of food insecurity with hunger were 3.0, 3.4, and 3.3 percent.

Table 1—Prevalence of food security, food insecurity, and hunger by year

Unit	Total ¹	Food secure		Food insecure						
		1,000	Percent	All	Without hunger	With hunger	1,000	Percent	1,000	Percent
Households										
1998	103,309	91,121	88.2	12,188	11.8	8,353	8.1	3,835	3.7	
1999	104,684	94,154	89.9	10,529	10.1	7,420	7.1	3,109	3.0	
2000	106,043	94,942	89.5	11,101	10.5	7,786	7.3	3,315	3.1	
2001	107,824	96,303	89.3	11,521	10.7	8,010	7.4	3,511	3.3	
All individuals (by food security status of household)²										
1998	268,366	232,219	86.5	36,147	13.5	26,290	9.8	9,857	3.7	
1999	270,318	239,304	88.5	31,015	11.5	23,237	8.6	7,779	2.9	
2000	273,685	240,454	87.9	33,231	12.1	24,708	9.0	8,523	3.1	
2001	276,661	243,019	87.8	33,642	12.2	24,628	8.9	9,014	3.3	
Adults (by food security status of household)²										
1998	197,084	174,964	88.8	22,120	11.2	15,632	7.9	6,488	3.3	
1999	198,900	179,960	90.5	18,941	9.5	13,869	7.0	5,072	2.5	
2000	201,922	181,586	89.9	20,336	10.1	14,763	7.3	5,573	2.8	
2001	204,340	183,398	89.8	20,942	10.2	14,879	7.3	6,063	3.0	
Households with children										
	Total ¹	Food secure		All		Food insecure		Without hunger		With hunger
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent	1,000
1998	38,036	31,335	82.4	6,701	17.6	6,370	16.7	331	.9	
1999	37,884	32,290	85.2	5,594	14.8	5,375	14.2	219	.6	
2000	38,113	31,942	83.8	6,171	16.2	5,916	15.5	255	.7	
2001	38,330	32,141	83.9	6,189	16.1	5,978	15.6	211	.6	
Children (by food security status of household)²										
1998	71,282	57,255	80.3	14,027	19.7	13,311	18.7	716	1.0	
1999	71,418	59,344	83.1	12,074	16.9	11,563	16.2	511	.7	
2000	71,763	58,867	82.0	12,896	18.0	12,334	17.2	562	.8	
2001	72,321	59,620	82.4	12,701	17.6	12,234	16.9	467	.6	

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 2001, these represented 353,000 households (0.3 percent of all households.)

²The food security survey measures food security status at the household level. Not all individuals residing in food-insecure households are appropriately characterized as food insecure. Similarly, not all individuals in households classified as food insecure with hunger nor all children in households classified as food insecure with hunger among children were subject to reductions in food intake or experienced resource-constrained hunger.

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

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

The prevalence of food insecurity and hunger varied considerably among household types (table 2). Rates of food insecurity were well below the national average of 10.7 percent for households with more than one adult and no children (6.0 percent) and for households with elderly persons (5.5 percent).⁵ Rates of food insecurity substantially higher than the national average were registered by the following groups:

- households with incomes below the official poverty line (36.5 percent),⁶
- households with children, headed by a single woman (31.9 percent),
- Black households (21.3 percent), and
- Hispanic households (21.8 percent).

Overall, households with children reported food insecurity at more than double the rate for households without children (16.1 vs. 7.7 percent). Among households with children, those with married-couple families showed the lowest rate of food insecurity (10.7 percent).

⁵“Elderly” in this report refers to persons age 65 and older.

⁶The Federal poverty line was \$17,960 for a family of four in 2001.

The prevalence of food insecurity for households located in central cities (13.9 percent) and nonmetropolitan areas (11.5 percent) substantially exceeded the rate for households in suburbs and other metropolitan areas outside central cities (8.3 percent). Regionally, the prevalence of food insecurity was higher in the South and West (12.3 and 11.9 percent, respectively) than in the Northeast and Midwest (8.2 and 9.0 percent).

The prevalence of hunger in various types of households followed a pattern similar to that observed for food insecurity. Hunger rates were lowest for married couples with children (2.1 percent), multiple-adult households with no children (2.1 percent), and households with elderly persons (1.5 percent). Hunger rates were higher than the 3.3 percent national average among families headed by single women (8.7 percent), Black and Hispanic households (6.2 and 5.4 percent, respectively), and households below the poverty line (12.9 percent). Geographically, hunger was more common in central-city households (4.8 percent) and in those in the South and West (3.6 and 3.7 percent, respectively).

Households showing the lowest rates of hunger among children were married-couple families, single male-headed households, and households with higher incomes (table 3). Children living with a single mother were more affected by resource-constrained hunger, as were Black and Hispanic children.

Table 2—Prevalence of food security, food insecurity, and hunger by selected household characteristics, 2001

Category	Total ¹	Food secure		Food insecure					
		1,000	Percent	All	Without hunger		With hunger		
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All households	107,824	96,303	89.3	11,521	10.7	8,010	7.4	3,511	3.3
Household composition									
With children < 18	38,330	32,141	83.9	6,189	16.1	4,744	12.4	1,445	3.8
With children < 6	16,850	13,912	82.6	2,938	17.4	2,306	13.7	632	3.8
Married-couple families	26,182	23,389	89.3	2,793	10.7	2,247	8.6	546	2.1
Female head, no spouse	9,080	6,185	68.1	2,895	31.9	2,101	23.1	794	8.7
Male head, no spouse	2,389	2,009	84.1	380	15.9	298	12.5	82	3.4
Other household with child ²	678	555	81.9	123	18.1	99	14.6	24	3.5
With no children < 18	69,495	64,163	92.3	5,332	7.7	3,266	4.7	2,066	3.0
More than one adult	40,791	38,328	94.0	2,463	6.0	1,595	3.9	868	2.1
Women living alone	16,513	14,915	90.3	1,598	9.7	952	5.8	646	3.9
Men living alone	12,192	10,922	89.6	1,270	10.4	718	5.9	552	4.5
With elderly	24,836	23,458	94.5	1,378	5.5	1,002	4.0	376	1.5
Elderly living alone	10,390	9,758	93.9	632	6.1	426	4.1	206	2.0
Race/ethnicity of households									
White non-Hispanic	80,337	74,230	92.4	6,107	7.6	4,072	5.1	2,035	2.5
Black non-Hispanic	13,134	10,331	78.7	2,803	21.3	1,986	15.1	817	6.2
Hispanic ³	9,864	7,717	78.2	2,147	21.8	1,613	16.4	534	5.4
Other non-Hispanic	4,489	4,026	89.7	463	10.3	339	7.6	124	2.8
Household income-to-poverty ratio									
Under 1.00	11,693	7,426	63.5	4,267	36.5	2,763	23.6	1,504	12.9
Under 1.30	16,904	11,450	67.7	5,454	32.3	3,609	21.3	1,845	10.9
Under 1.85	25,395	18,316	72.1	7,079	27.9	4,811	18.9	2,268	8.9
1.85 and over	63,851	60,743	95.1	3,108	4.9	2,284	3.6	824	1.3
Income unknown	18,579	17,245	92.8	1,334	7.2	915	4.9	419	2.3
Area of residence									
Inside metropolitan area	86,945	77,826	89.5	9,119	10.5	6,281	7.2	2,838	3.3
In central city ⁴	26,701	22,987	86.1	3,714	13.9	2,442	9.1	1,272	4.8
Not in central city ⁴	45,380	41,622	91.7	3,758	8.3	2,633	5.8	1,125	2.5
Outside metropolitan area	20,879	18,476	88.5	2,403	11.5	1,730	8.3	673	3.2
Census geographic region									
Northeast	20,320	18,656	91.8	1,664	8.2	1,176	5.8	488	2.4
Midwest	25,063	22,805	91.0	2,258	9.0	1,502	6.0	756	3.0
South	38,867	34,073	87.7	4,794	12.3	3,395	8.7	1,399	3.6
West	23,575	20,771	88.1	2,804	11.9	1,937	8.2	867	3.7

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 2001, these represented 353,000 households (0.3 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 subtotals do not add to metropolitan area totals because central-city residence is not identified for about 17 percent of households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2001 Current Population Survey Food Security Supplement.

Table 3—Prevalence of food security, food insecurity, and hunger in households with children by selected household characteristics, 2001

Category	Total ¹ 1,000	Food secure		Food insecure					
				All		Without hunger among children		With hunger among children	
				1,000	Percent	1,000	Percent	1,000	Percent
All households with children	38,330	32,141	83.9	6,189	16.1	5,978	15.6	211	0.6
Household composition:									
With children < 6	16,850	13,911	82.6	2,939	17.4	2,868	17.0	71	.4
Married-couple families	26,182	23,389	89.3	2,793	10.7	2,727	10.4	66	.3
Female head, no spouse	9,080	6,186	68.1	2,894	31.9	2,768	30.5	126	1.4
Male head, no spouse	2,389	2,009	84.1	380	15.9	365	15.3	15	.6
Other household with child ²	678	556	82.0	122	18.0	118	17.4	4	.6
Race/ethnicity of households									
White non-Hispanic	25,088	22,261	88.7	2,827	11.3	2,772	11.0	55	.2
Black non-Hispanic	5,733	4,138	72.2	1,595	27.8	1,523	26.6	72	1.3
Hispanic ³	5,560	4,094	73.6	1,466	26.4	1,397	25.1	69	1.2
Other non-Hispanic	1,949	1,648	84.6	301	15.4	286	14.7	15	.8
Household income-to-poverty ratio									
Under 1.00	5,630	3,127	55.5	2,503	44.5	2,381	42.3	122	2.2
Under 1.30	7,608	4,462	58.6	3,146	41.4	3,012	39.6	134	1.8
Under 1.85	11,719	7,477	63.8	4,242	36.2	4,068	34.7	174	1.5
1.85 and over	21,411	20,066	93.7	1,345	6.3	1,323	6.2	22	.1
Income unknown	5,200	4,598	88.4	602	11.6	587	11.3	15	.3
Area of residence									
Inside metropolitan area	31,238	26,269	84.1	4,969	15.9	4,771	15.3	198	.6
In central city ⁴	8,978	6,988	77.8	1,990	22.2	1,871	20.8	119	1.3
Not in central city ⁴	16,986	14,894	87.7	2,092	12.3	2,028	11.9	64	.4
Outside metropolitan area	7,091	5,871	82.8	1,220	17.2	1,207	17.0	13	.2
Census geographic region									
Northeast	6,864	6,041	88.0	823	12.0	783	11.4	40	.6
Midwest	8,737	7,586	86.8	1,151	13.2	1,115	12.8	36	.4
South	13,892	11,256	81.0	2,636	19.0	2,560	18.4	76	.5
West	8,836	7,257	82.1	1,579	17.9	1,520	17.2	59	.7
Individuals in households with children									
All individuals in households with children	153,562	128,593	83.7	24,969	16.3	24,073	15.7	896	.6
Adults in households with children	81,241	68,972	84.9	12,269	15.1	11,840	14.6	429	.5
Children	72,321	59,620	82.4	12,701	17.6	12,234	16.9	467	.6

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 2001, these represented 148,000 households with children (0.4 percent.)

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

³Hispanics may be of any race.

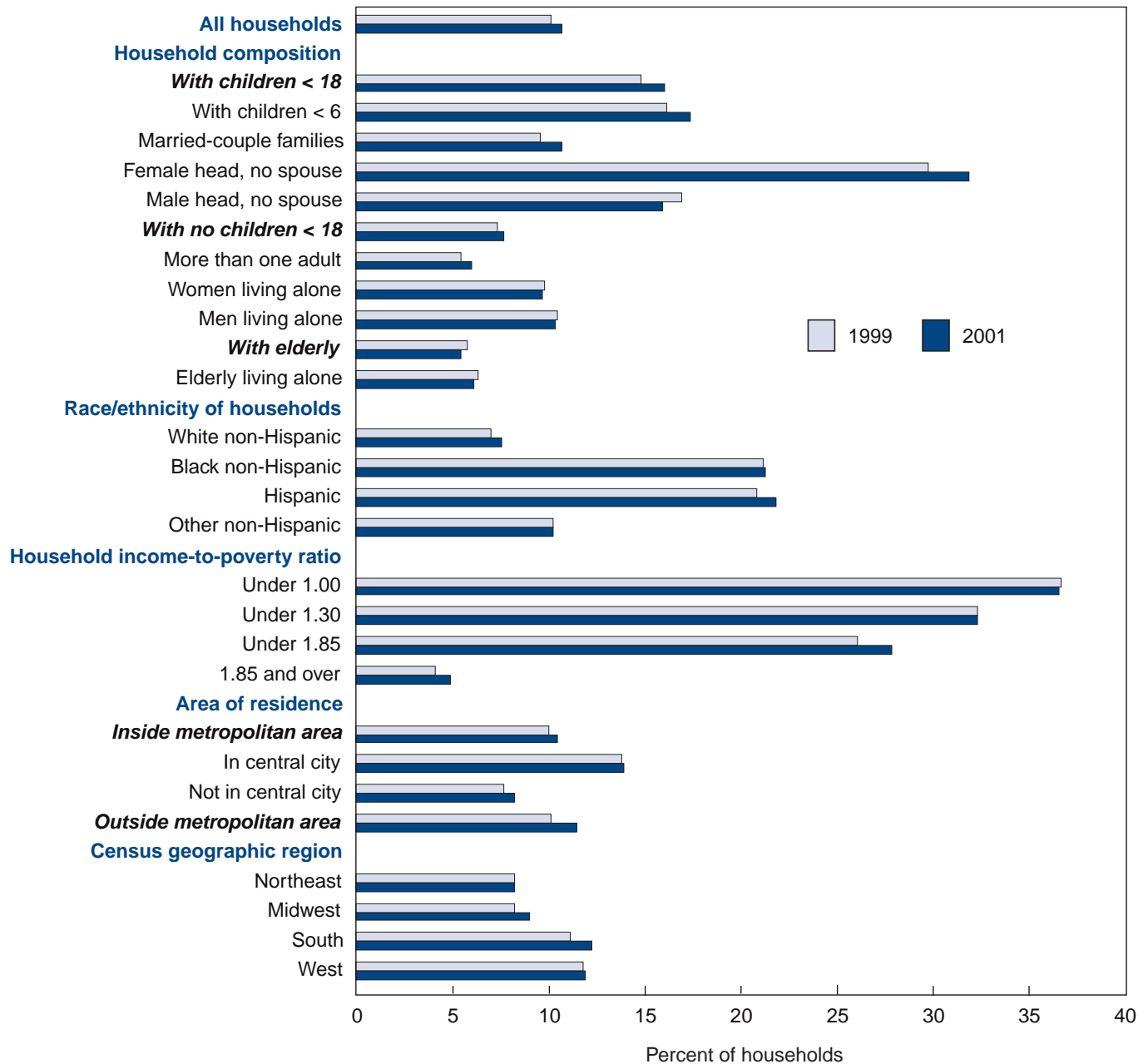
⁴Metropolitan area subtotals do not add to metropolitan area totals because central-city residence is not identified for about 17 percent of households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2001 Current Population Survey Food Security Supplement.

The increases in food insecurity and hunger from 1999 to 2001 appear to have affected most regions and types of households. The prevalence of food insecurity increased for all regions except the Northeast, and for all types of households except single fathers with children, individuals living alone, households with elderly, and households with incomes below 130 percent of the

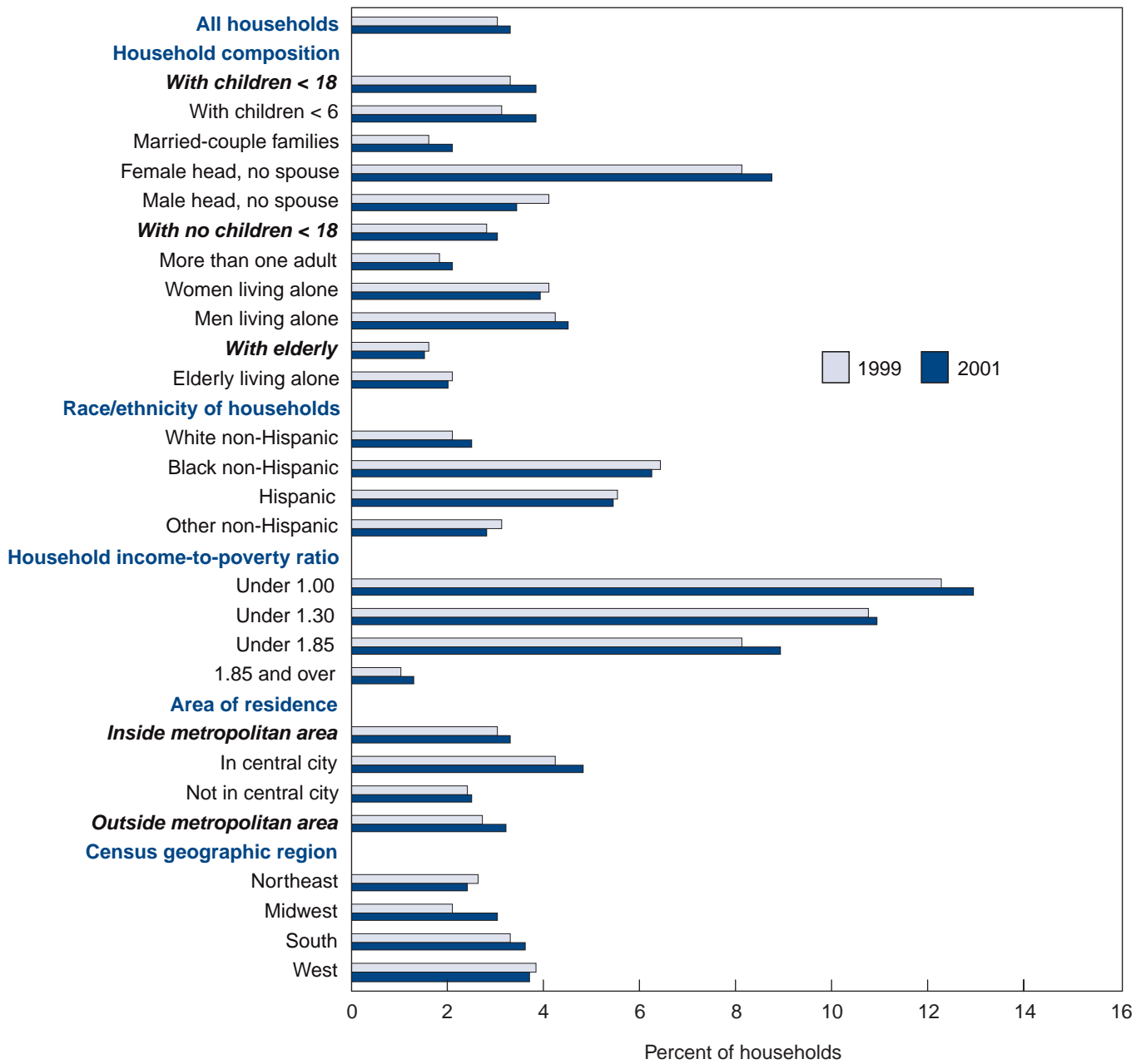
poverty line (fig. 2). Few of the changes were statistically significant, but except as noted, the observed rates of food insecurity increased for all groups analyzed. Changes in the prevalence of food insecurity with hunger were less consistent across household types, with small, statistically insignificant changes for most groups (fig. 3).

Figure 2
Prevalence of food insecurity, 1999 and 2001



Source: Calculated by ERS based on Current Population Survey Food Security Supplement data, April 1999 and December 2001.

Figure 3
Prevalence of hunger, 1999 and 2001



Source: Calculated by ERS based on Current Population Survey Food Security Supplement data, April 1999 and December 2001.

Food Insecurity and Hunger in Low-Income Households

Food insecurity and hunger, as reported here, are by definition conditions that result from insufficient household resources. In 2001, food insecurity was six times as prevalent, and hunger seven times as prevalent, in households with annual income below 185 percent of the poverty line as in households with income 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 hunger, even though their annual income was well above the poverty line (Gundersen and Gruber, 2001). On the other hand, many low-income households (including almost two-thirds of those with income below the official poverty line) were food secure.

Table 4 presents food security and hunger statistics for households with annual incomes below 130 percent of the poverty line.⁷ Almost one-third of these low-income households were food insecure, and in 10.9 percent, household members experienced hunger at times during the year. Low-income households with children were more affected by food insecurity than households without children (41.4 percent vs. 24.8 percent), although the prevalence of hunger differed only slightly between the two categories. Low-income single mothers with children were especially vulnerable to both food insecurity and hunger; 45.5 percent of these households were food insecure, including 13.2 percent in which one or more persons, usually the mother, experienced hunger at times during the year because of lack of money or other resources for food.

⁷Households 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—Prevalence of food security, food insecurity, and hunger in households with income below 130 percent of the poverty line by selected household characteristics, 2001

Category	Total ¹			Food insecure					
	Food secure			All		Without hunger		With hunger	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All low-income households	16,904	11,450	67.7	5,454	32.3	3,609	21.3	1,845	10.9
Household composition									
With children < 18	7,608	4,462	58.6	3,146	41.4	2,273	29.9	873	11.5
With children < 6	4,037	2,422	60.0	1,615	40.0	1,235	30.6	380	9.4
Married-couple families	3,080	1,879	61.0	1,201	39.0	901	29.3	300	9.7
Female head, no spouse	3,806	2,075	54.5	1,731	45.5	1,227	32.2	504	13.2
Male head, no spouse	523	367	70.2	156	29.8	109	20.8	47	9.0
Other household with child ²	199	141	70.9	58	29.1	35	17.6	23	11.6
With no children < 18	9,296	6,988	75.2	2,308	24.8	1,336	14.4	972	10.5
More than one adult	3,888	3,046	78.3	842	21.7	507	13.0	335	8.6
Women living alone	3,475	2,594	74.6	881	25.4	518	14.9	363	10.4
Men living alone	1,933	1,347	69.7	586	30.3	312	16.1	274	14.2
With elderly	4,223	3,454	81.8	769	18.2	557	13.2	212	5.0
Elderly living alone	2,206	1,822	82.6	384	17.4	264	12.0	120	5.4
Race/ethnicity of households									
White non-Hispanic	9,116	6,600	72.4	2,516	27.6	1,581	17.3	935	10.3
Black non-Hispanic	3,750	2,226	59.4	1,524	40.6	1,026	27.4	498	13.3
Hispanic ³	3,214	2,031	63.2	1,183	36.8	856	26.6	327	10.2
Other non-Hispanic	825	594	72.0	231	28.0	146	17.7	85	10.3
Area of residence									
Inside metropolitan area	12,644	8,519	67.4	4,125	32.6	2,705	21.4	1,420	11.2
In central city ⁴	5,413	3,572	66.0	1,841	34.0	1,174	21.7	667	12.3
Not in central city ⁴	4,548	3,102	68.2	1,446	31.8	953	21.0	493	10.8
Outside metropolitan area	4,260	2,931	68.8	1,329	31.2	904	21.2	425	10.0
Census geographic region									
Northeast	2,605	1,876	72.0	729	28.0	494	19.0	235	9.0
Midwest	3,519	2,476	70.4	1,043	29.6	658	18.7	385	10.9
South	6,909	4,556	65.9	2,353	34.1	1,580	22.9	773	11.2
West	3,871	2,541	65.6	1,330	34.4	877	22.7	453	11.7
Individuals in low-income households (by food security status of household)									
All individuals in low-income households	45,941	29,405	64.0	16,536	36.0	11,508	25.0	5,028	10.9
Adults in low-income households	29,577	20,042	67.8	9,535	32.2	6,391	21.6	3,144	10.6
Children in low-income households	16,364	9,363	57.2	7,001	42.8	5,117	31.3	1,884	11.5

¹Totals exclude households whose income was not reported (about 17 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 (0.7 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 subtotals do not add to metropolitan area totals because central-city residence is not identified for about 17 percent of households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2001 Current Population Survey Food Security Supplement.

Number of Persons by Household Food Security Status and Household Type

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 estimates should not be used to characterize the number of individuals affected by food insecurity and hunger; not all persons in food-insecure households are food insecure. Similarly, people who live in households classified as food insecure with hunger, especially young children, are not all subject to reductions in food intake and do not all experience hunger.

In 2001, 33.6 million people lived in food-insecure households, up from 31.0 million in 1999 (table 1). They constituted 12.2 percent of the U.S. population and included 20.9 million adults and 12.7 million children. Of these individuals, 6.1 million adults and 3 million children lived in households where someone experienced hunger during the year. The number of children living in households classified as food insecure with hunger among children was 467,000 (0.6 percent of the children in the Nation; table 1). Tables 5 and 6 present estimates of the total number of *individuals* and the number of *children* in the households in each food security status and household type.

Table 5—Number of individuals by food security status of households and selected household characteristics, 2001

Category	Total ¹	Food secure		Food insecure					
		1,000	Percent	All		Without hunger		With hunger	
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent
All individuals in households	276,661	243,019	87.8	33,642	12.2	24,628	8.9	9,014	3.3
Household composition									
With children < 18	153,562	128,592	83.7	24,970	16.3	19,208	12.5	5,762	3.8
With children < 6	71,158	58,137	81.7	13,021	18.3	10,174	14.3	2,847	4.0
Married-couple families	112,206	98,938	88.2	13,268	11.8	10,602	9.4	2,666	2.4
Female head, no spouse	30,659	20,803	67.9	9,856	32.1	7,171	23.4	2,685	8.8
Male head, no spouse	8,004	6,630	82.8	1,374	17.2	1,064	13.3	310	3.9
Other household with child ²	2,692	2,221	82.5	471	17.5	370	13.7	101	3.8
With no children < 18	123,099	114,427	93.0	8,672	7.0	5,420	4.4	3,252	2.6
More than one adult	94,395	88,591	93.9	5,804	6.1	3,749	4.0	2,055	2.2
Women living alone	16,513	14,915	90.3	1,598	9.7	952	5.8	646	3.9
Men living alone	12,192	10,922	89.6	1,270	10.4	718	5.9	552	4.5
With elderly	47,346	44,310	93.6	3,036	6.4	2,267	4.8	769	1.6
Elderly living alone	10,390	9,758	93.9	632	6.1	426	4.1	206	2.0
Race/ethnicity of households									
White non-Hispanic	195,167	179,329	91.9	15,838	8.1	11,296	5.8	4,542	2.3
Black non-Hispanic	34,532	26,547	76.9	7,985	23.1	5,899	17.1	2,086	6.0
Hispanic ³	33,920	25,682	75.7	8,238	24.3	6,268	18.5	1,970	5.8
Other non-Hispanic	13,042	11,460	87.9	1,582	12.1	1,165	8.9	417	3.2
Household income-to-poverty ratio									
Under 1.00	32,202	19,320	60.0	12,882	40.0	8,745	27.2	4,137	12.8
Under 1.30	45,941	29,405	64.0	16,536	36.0	11,508	25.0	5,028	10.9
Under 1.85	69,784	48,004	68.8	21,780	31.2	15,566	22.3	6,214	8.9
1.85 and over	162,430	154,424	95.1	8,006	4.9	6,222	3.8	1,784	1.1
Income unknown	44,446	40,590	91.3	3,856	8.7	2,840	6.4	1,016	2.3
Area of residence									
Inside metropolitan area	224,772	197,722	88.0	27,050	12.0	19,606	8.7	7,444	3.3
In central city ⁴	66,314	55,104	83.1	11,210	16.9	7,806	11.8	3,404	5.1
Not in central city ⁴	120,609	109,403	90.7	11,206	9.3	8,287	6.9	2,919	2.4
Outside metropolitan area	51,888	45,296	87.3	6,592	12.7	5,022	9.7	1,570	3.0
Census geographic region									
Northeast	52,121	47,503	91.1	4,618	8.9	3,505	6.7	1,113	2.1
Midwest	63,498	57,247	90.2	6,251	9.8	4,483	7.1	1,768	2.8
South	97,558	83,958	86.1	13,600	13.9	10,014	10.3	3,586	3.7
West	63,483	54,309	85.5	9,174	14.5	6,627	10.4	2,547	4.0

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 2001, these represented 951,000 individuals (0.3 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 subtotals do not add to metropolitan area totals because central-city residence is not identified for about 17 percent of households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2001 Current Population Survey Food Security Supplement.

Table 6—Number of children by food security status of households and selected household characteristics, 2001

Category	Total ¹	Food secure		All		Food insecure		Food insecure	
		1,000	Percent	1,000	Percent	Without hunger among children	With hunger among children	1,000	Percent
All children	72,321	59,620	82.4	12,701	17.6	12,234	16.9	467	0.6
Household composition									
With children < 6	35,818	28,857	80.6	6,961	19.4	6,770	18.9	191	.5
Married-couple families	51,347	44,894	87.4	6,453	12.6	6,311	12.3	142	.3
Female head, no spouse	16,170	10,753	66.5	5,417	33.5	5,135	31.8	282	1.7
Male head, no spouse	3,699	3,066	82.9	633	17.1	600	16.2	33	.9
Other household with child ²	1,105	907	82.1	198	17.9	188	17.0	10	.9
Race/ethnicity of households									
White non-Hispanic	45,852	40,410	88.1	5,442	11.9	5,332	11.6	110	.2
Black non-Hispanic	10,825	7,620	70.4	3,205	29.6	3,049	28.2	156	1.4
Hispanic ³	11,961	8,544	71.4	3,417	28.6	3,257	27.2	160	1.3
Other non-Hispanic	3,683	3,045	82.7	638	17.3	597	16.2	41	1.1
Household income-to-poverty ratio									
Under 1.00	12,273	6,636	54.1	5,637	45.9	5,322	43.4	315	2.6
Under 1.30	16,364	9,364	57.2	7,000	42.8	6,662	40.7	338	2.1
Under 1.85	24,609	15,483	62.9	9,126	37.1	8,709	35.4	417	1.7
1.85 and over	38,048	35,750	94.0	2,298	6.0	2,267	6.0	31	.1
Income unknown	9,663	8,385	86.8	1,278	13.2	1,258	13.0	20	.2
Area of residence									
Inside metropolitan area	59,136	48,890	82.7	10,246	17.3	9,807	16.6	439	.7
In central city ⁴	17,239	12,884	74.7	4,355	25.3	4,085	23.7	270	1.6
Not in central city ⁴	32,105	27,988	87.2	4,117	12.8	3,984	12.4	133	.4
Outside metropolitan area	13,185	10,730	81.4	2,455	18.6	2,427	18.4	28	.2
Census geographic region									
Northeast	13,179	11,439	86.8	1,740	13.2	1,636	12.4	104	.8
Midwest	16,901	14,530	86.0	2,371	14.0	2,281	13.5	90	.5
South	24,885	19,924	80.1	4,961	19.9	4,806	19.3	155	.6
West	17,356	13,726	79.1	3,630	20.9	3,511	20.2	119	.7

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 2001, these represented 306,000 children (0.4 percent.)

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 subtotals do not add to metropolitan area totals because central-city residence is not identified for about 17 percent of households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2001 Current Population Survey Food Security Supplement.

Prevalence of Food Insecurity and Hunger by State, 1999-2001

Prevalence rates of food insecurity and hunger varied considerably from State to State. Data for 3 years, 1999-2001, 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 6.5 percent in New Hampshire to 14.6 percent in New Mexico; measured prevalence rates of hunger ranged from 1.5 percent in Virginia to 5.8 percent in Oregon.

The margins of error for the State prevalence rates should be taken into consideration when interpreting these statistics and especially when comparing across States. Margins of error reflect sampling variation—the uncertainty associated with estimates that are based on information from only 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 certain to fall. In some States, margins of error were nearly 2 percentage points for estimated prevalence rates of food insecurity and larger than 1 percentage point for estimated prevalence rates of hunger. For example, the prevalence rate of food insecurity in New Mexico was 14.6 percent, plus or minus 1.75 percentage points. Considering the margin of error, it is not clear (statistically significant) that the rate of food insecurity in New Mexico was higher than that of the States with the next 10 highest prevalence rates of food insecurity.

These State-level food security statistics cannot be compared directly with those published previously by ERS in *Prevalence of Food Insecurity and Hunger, by State, 1996-1998* (Nord et al., 1999) because of changes over the years in screening procedures used to reduce respondent burden in the CPS food security surveys. Appendix D provides prevalence rates for the earlier period that have been adjusted for these screening differences so as to be comparable with those for 1999-2001.

Table 7—Prevalence of household-level food insecurity and hunger by State, average 1999-2001¹

State	Number of households		Food insecure (with or without hunger)		Food insecure with hunger	
	Average		Prevalence	Margin of error ³	Prevalence	Margin of error ³
	1999-2001 ²	Interviewed				
U.S. total	106,184,000	125,748	10.4	0.28	3.1	0.10
AK	221,000	1,504	11.1	1.48	4.3	1.00
AL	1,718,000	1,859	11.9	1.23	3.9	.8
AR	1,031,000	1,675	12.8	1.69	3.9	1.06
AZ	1,866,000	1,826	11.6	1.47	3.6	.75
CA	12,206,000	9,099	11.8	.76	3.3	.42
CO	1,605,000	2,101	8.6	1.16	2.5	.65
CT	1,316,000	1,664	6.8	1.07	2.6	.66
DC	261,000	1,509	9.8	1.18	2.9	.73
DE	293,000	1,333	7.3	1.47	2.1	.78
FL	6,267,000	5,979	12.2	1.00	4.0	.54
GA	2,966,000	1,808	11.6	.98	3.9	.80
HI	417,000	1,217	10.8	1.83	3.0	.95
IA	1,157,000	1,904	7.6	1.15	2.2	.61
ID	471,000	1,812	13.0	1.87	4.5	.61
IL	4,592,000	4,797	9.2	1.00	2.7	.45
IN	2,413,000	2,031	8.5	1.17	2.5	.54
KS	1,071,000	1,940	11.3	1.56	3.2	.81
KY	1,570,000	1,745	10.1	1.35	3.0	.71
LA	1,685,000	1,529	13.2	1.61	3.0	.56
MA	2,372,000	2,680	6.7	1.34	2.0	.70
MD	2,061,000	1,788	8.8	1.32	3.1	.85
ME	538,000	1,816	9.4	1.07	3.1	.65
MI	3,815,000	3,996	8.1	.89	2.4	.44
MN	1,846,000	2,083	7.1	.85	2.0	.76
MO	2,173,000	1,765	8.6	1.39	2.3	.59
MS	1,076,000	1,487	13.1	1.47	3.7	1.02
MT	360,000	1,736	13.2	1.25	4.0	.79
NC	3,070,000	3,017	11.1	1.14	3.3	.64
ND	264,000	2,021	8.5	1.08	2.2	.55
NE	647,000	1,923	9.9	1.51	2.9	.74
NH	483,000	1,679	6.5	1.04	1.9	.59
NJ	3,065,000	3,333	7.8	.84	2.4	.61
NM	674,000	1,583	14.6	1.75	4.2	.84
NV	691,000	1,944	10.1	.97	3.4	.68
NY	6,978,000	6,914	9.6	.64	3.1	.39
OH	4,574,000	4,658	9.1	.69	2.8	.35
OK	1,355,000	1,875	12.9	1.54	3.8	.62
OR	1,305,000	1,749	13.7	1.19	5.8	.87
PA	4,744,000	5,103	8.4	.61	2.2	.37
RI	397,000	1,683	8.7	1.41	2.5	.58
SC	1,588,000	1,509	11.3	1.36	3.6	1.09
SD	293,000	1,944	7.9	1.12	1.9	.51
TN	2,147,000	1,589	11.8	1.29	3.4	.64
TX	7,456,000	5,609	13.9	1.11	3.6	.53
UT	691,000	1,528	13.8	1.41	4.6	.90
VA	2,722,000	1,977	7.6	1.30	1.5	.57
VT	243,000	1,519	9.1	1.42	1.8	.56
WA	2,329,000	1,959	12.5	1.44	4.6	.97
WI	2,129,000	2,208	8.4	1.10	2.9	.59
WV	776,000	1,916	10.3	1.12	3.3	.62
WY	198,000	1,825	9.9	1.68	3.2	.79

¹Prevalence rates for 1996-98 reported in *Prevalence of Food Insecurity and Hunger, by State, 1996-1998* (Nord et al., 2000) 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.

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 based on Current Population Survey Food Security Supplement data, April 1999, September 2000, and December 2001.