

## Appendix D. Changes in Prevalence Rates of Food Insecurity and Food Insecurity With Hunger by State, 1996-98 (average) to 2001-03 (average)

To assess changes in prevalence rates of food insecurity and food insecurity with hunger over time, adjustments must be made for year-to-year differences in screening procedures used to reduce respondent burden in the CPS food security surveys.<sup>35</sup> The State-level prevalence rates of food insecurity and hunger reported in *Prevalence of Food Insecurity and Hunger, by State, 1996-1998* (Nord et al., 1999) were based on data that had been edited so as to be consistent with that collected under the most restrictive screening protocol used during that period—that of the 1997 survey.<sup>36</sup> Those rates cannot be compared directly with the prevalence rates for 2001-03 presented in section 1 of this report, which are based on data collected under screening procedures initiated in 1998. The older, more restrictive screening procedures depressed prevalence estimates—especially for food insecurity—compared with those in use since 1998 because a small proportion of the households screened out were actually food insecure. The effect of the screening differences at the national level can be seen in figure 2, which presents prevalence rates from 1998 to 2003 based both on the unedited data for each year and on data edited to be comparable across all years.

To provide an appropriate baseline for assessing changes in State prevalence rates of food insecurity and food insecurity with hunger, statistics from the 1996-98 report for each State were adjusted upward to offset the estimated effects of the earlier screening procedures on that States' prevalence rates.<sup>37</sup> Table D-1 compares State-level prevalence rates for 2001-03 (repeated from table 7) with the adjusted 1996-1998 rates. Declines in prevalences of food insecurity were statistically significant in 9 States and the District of Columbia, while 10 States registered increases in food insecurity prevalence rates large enough to be statistically significant. Declines in prevalence rates of food insecurity with hunger were statistically significant in seven States and the District of Columbia. Only North Carolina registered a statistically significant increase in the prevalence of food insecurity with hunger.<sup>38</sup>

<sup>35</sup> Households—especially those with higher incomes—that report no indication of any food access problems on two or three “screener” questions are not asked the questions in the food security module. They are classified as food secure. Screening procedures in the CPS food security surveys were modified from year to year prior to 1998 to achieve an acceptable balance between accuracy and respondent burden. Since 1998, screening procedures have remained unchanged.

<sup>36</sup> To make prevalence rates comparable across all years, data for each year were edited so that households were classified as food secure if they would have been screened out of the food security module under procedures used in any year's survey.

<sup>37</sup> The method used to calculate these adjustments was described in detail in *Household Food Security in the United States, 2001* (Nord et al., 2002), appendix D.

<sup>38</sup> Seasonal effects on food security measurement (discussed in section 1) probably bias prevalence rates for 1996-98 upward somewhat compared with 2001-2003. At the national level, this effect would raise the prevalence rate of food insecurity in 1996-98 by about 0.8 percentage points and the prevalence rate of food insecurity with hunger by about 0.4 percentage points. However, seasonal effects may vary from State to State.

**Table D-1—Changes in prevalence rates of food insecurity and food insecurity with hunger, by State, 1996-98 (average) to 2001-03 (average)<sup>1</sup>**

| State      | Food insecure (with or without hunger) |                     |                      | Food insecure with hunger |                     |                      |
|------------|----------------------------------------|---------------------|----------------------|---------------------------|---------------------|----------------------|
|            | Average,<br>1996-98                    | Average,<br>2001-03 | Change*              | Average,<br>1996-98       | Average,<br>2001-03 | Change               |
|            | -----Percent-----                      |                     | Percentage<br>points | -----Percent-----         |                     | Percentage<br>points |
| U.S. total | 11.3                                   | 11.0                | -0.3                 | 3.7                       | 3.4                 | -0.3*                |
| AK         | 8.7                                    | 11.5                | 2.8*                 | 3.6                       | 4.1                 | .5                   |
| AL         | 12.5                                   | 12.5                | 0                    | 3.3                       | 3.2                 | -.1                  |
| AR         | 13.7                                   | 15.5                | 1.8*                 | 4.8                       | 4.7                 | -.1                  |
| AZ         | 14.6                                   | 12.3                | -2.3                 | 4.3                       | 3.8                 | -.5                  |
| CA         | 13.3                                   | 12.2                | -1.1*                | 4.3                       | 3.6                 | -.7*                 |
| CO         | 10.8                                   | 9.7                 | -1.1                 | 3.8                       | 3.0                 | -.8                  |
| CT         | 11.0                                   | 8.0                 | -3.0*                | 4.1                       | 3.0                 | -1.1                 |
| DC         | 13.7                                   | 9.0                 | -4.7*                | 4.7                       | 2.4                 | -2.3*                |
| DE         | 8.1                                    | 6.7                 | -1.4*                | 2.9                       | 1.8                 | -1.1                 |
| FL         | 13.2                                   | 11.7                | -1.5                 | 4.5                       | 3.7                 | -.8                  |
| GA         | 10.9                                   | 12.9                | 2.0                  | 3.4                       | 3.6                 | .2                   |
| HI         | 12.9                                   | 9.9                 | -3.0*                | 3.1                       | 3.3                 | .2                   |
| IA         | 8.0                                    | 9.5                 | 1.5*                 | 2.6                       | 3.0                 | .4                   |
| ID         | 11.3                                   | 13.7                | 2.4*                 | 3.3                       | 3.9                 | .6                   |
| IL         | 9.6                                    | 7.9                 | -1.7*                | 3.2                       | 2.5                 | -.7*                 |
| IN         | 9.0                                    | 9.9                 | .9                   | 2.9                       | 3.4                 | .5                   |
| KS         | 11.5                                   | 11.7                | .2                   | 4.2                       | 4.4                 | .2                   |
| KY         | 9.7                                    | 11.2                | 1.5*                 | 3.4                       | 3.3                 | -.1                  |
| LA         | 14.4                                   | 12.3                | -2.1                 | 4.4                       | 2.6                 | -1.8*                |
| MA         | 7.5                                    | 6.2                 | -1.3                 | 2.1                       | 2.3                 | .2                   |
| MD         | 8.7                                    | 7.7                 | -1.0                 | 3.3                       | 2.9                 | -.4                  |
| ME         | 9.8                                    | 9.2                 | -.6                  | 4.0                       | 2.9                 | -1.1                 |
| MI         | 9.6                                    | 10.1                | .5                   | 3.1                       | 3.4                 | .3                   |
| MN         | 8.6                                    | 7.1                 | -1.5                 | 3.1                       | 2.2                 | -.9                  |
| MO         | 10.1                                   | 10.4                | .3                   | 3.0                       | 3.6                 | .6                   |
| MS         | 14.6                                   | 14.9                | .3                   | 4.2                       | 4.0                 | -.2                  |
| MT         | 11.2                                   | 12.5                | 1.3                  | 3.0                       | 4.0                 | 1.0                  |
| NC         | 9.8                                    | 13.7                | 3.9*                 | 2.7                       | 4.5                 | 1.8*                 |
| ND         | 5.5                                    | 6.9                 | 1.4*                 | 1.6                       | 2.0                 | .4                   |
| NE         | 8.7                                    | 10.4                | 1.7                  | 2.5                       | 3.0                 | .5                   |
| NH         | 8.6                                    | 6.4                 | -2.2*                | 3.1                       | 2.1                 | -1.0*                |
| NJ         | 8.9                                    | 8.6                 | -.3                  | 3.1                       | 3.1                 | .0                   |
| NM         | 16.5                                   | 14.8                | -1.7                 | 4.8                       | 4.4                 | -.4                  |
| NV         | 10.4                                   | 9.2                 | -1.2                 | 4.0                       | 3.4                 | -.6                  |
| NY         | 11.9                                   | 10.0                | -1.9*                | 4.1                       | 3.1                 | -1.0*                |
| OH         | 9.7                                    | 10.9                | 1.2                  | 3.5                       | 3.6                 | .1                   |
| OK         | 13.1                                   | 14.1                | 1.0                  | 4.2                       | 5.2                 | 1.0                  |
| OR         | 14.2                                   | 12.9                | -1.3                 | 6.0                       | 4.3                 | -1.7*                |
| PA         | 8.3                                    | 9.5                 | 1.2*                 | 2.6                       | 2.6                 | .0                   |
| RI         | 10.2                                   | 11.1                | .9                   | 2.7                       | 3.6                 | .9                   |
| SC         | 11.0                                   | 13.5                | 2.5*                 | 3.5                       | 4.9                 | 1.4                  |
| SD         | 8.2                                    | 8.9                 | .7                   | 2.2                       | 2.4                 | .2                   |
| TN         | 11.8                                   | 10.9                | -.9                  | 4.4                       | 3.3                 | -1.1                 |
| TX         | 15.2                                   | 14.9                | -.3                  | 5.5                       | 4.1                 | -1.4*                |
| UT         | 10.3                                   | 14.6                | 4.3*                 | 3.1                       | 4.4                 | 1.3                  |
| VA         | 10.2                                   | 8.4                 | -1.8*                | 3.0                       | 2.2                 | -.8                  |
| VT         | 8.8                                    | 8.9                 | .1                   | 2.7                       | 3.0                 | .3                   |
| WA         | 13.2                                   | 11.6                | -1.6*                | 4.7                       | 3.9                 | -.8                  |
| WI         | 8.5                                    | 9.0                 | .5                   | 2.6                       | 3.2                 | .6                   |
| WV         | 9.5                                    | 8.9                 | -.6                  | 3.1                       | 2.7                 | -.4                  |
| WY         | 9.9                                    | 10.1                | .2                   | 3.5                       | 4.2                 | .7                   |

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

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

Source: Prepared by ERS using data from Current Population Survey Food Security Supplement data.