

# COMPARISONS IN HOUSEHOLD FOOD SECURITY

*United States and India*



Global Agriculture  
Developments, Issues,  
and Research

SAMUEL OWUSU  
EDITOR

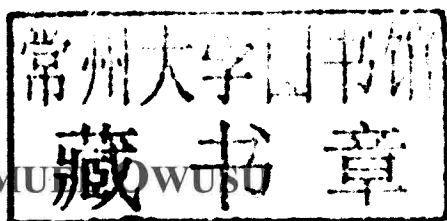
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GLOBAL AGRICULTURE: DEVELOPMENTS, ISSUES, AND RESEARCH

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UNITED STATES AND INDIA

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*New York*

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**COMPARISONS IN HOUSEHOLD  
FOOD SECURITY**

**UNITED STATES AND INDIA**

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## PREFACE

This book provides an overview of research in the study of household food security in the United States and India. An estimated 85.1 percent of American households were food secure throughout the entire year in 2011, meaning that they had access at all times to enough food for an active, healthy life for all household members. The remaining households (14.9 percent) were food insecure, meaning that the food intake of one or more household members was reduced and their eating patterns were disrupted at times during the year because the household lacked money and other resources for food. Comparatively, this book provides a quantitative assessment of food security using a large household-level expenditure survey conducted by the Government of India during 2004/2005. The analysis tests the impact of several key assumptions required to estimate actual calories consumed from the expenditure data.

Chapter 1 – An estimated 85.1 percent of American households were food secure throughout the entire year in 2011, meaning that they had access at all times to enough food for an active, healthy life for all household members. The remaining households (14.9 percent) were food insecure at least some time during the year, including 5.7 percent with very low food security—meaning that the food intake of one or more household members was reduced and their eating patterns were disrupted at times during the year because the household lacked money and other resources for food. The prevalence rate of very low food security increased from 5.4 percent in 2010, returning to the level observed in 2008 and 2009. The change in food insecurity overall (from 14.5 percent in 2010) was not statistically significant. The typical food-secure household spent 24 percent more on food than the typical food-insecure household of the same size and household composition. Fifty-seven percent of

all food-insecure households participated in one or more of the three largest Federal food and nutrition assistance programs during the month prior to the 2011 survey.

Chapter 2 – This study provides a quantitative assessment of food security using a large household-level expenditure survey conducted by the Government of India during 2004/05. The analysis tests the impact of several key assumptions required to estimate actual calories consumed from the expenditure data. The authors found significant differences in the estimates of calories consumed and the number of food-insecure people under alternative plausible assumptions for computing the calorie content of nonprocessed foods, processed foods, and meals eaten outside the household. The measurement errors were largest in accounting for calories consumed by the highest and lowest income households. Overall, the difference between the highest and lowest estimate of the number of people consuming an average of less than 2,100 calories per day was equivalent to about 17 percent of India's population, or 173 million people in 2004/05. Given the significant measurement error in estimating calories consumed, it is important to consider not only consumption surveys, but also aggregate food availability studies and survey data on anthropometric measures that accompany undernourishment—such as growth stunting—in assessing food insecurity.

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*Chapter 1*

## **HOUSEHOLD FOOD SECURITY IN THE UNITED STATES IN 2011\***

***Alisha Coleman-Jensen, Mark Nord, Margaret Andrews  
and Steven Carlson***

### **ABSTRACT**

An estimated 85.1 percent of American households were food secure throughout the entire year in 2011, meaning that they had access at all times to enough food for an active, healthy life for all household members. The remaining households (14.9 percent) were food insecure at least some time during the year, including 5.7 percent with very low food security—meaning that the food intake of one or more household members was reduced and their eating patterns were disrupted at times during the year because the household lacked money and other resources for food. The prevalence rate of very low food security increased from 5.4 percent in 2010, returning to the level observed in 2008 and 2009. The change in food insecurity overall (from 14.5 percent in 2010) was not statistically significant. The typical food-secure household spent 24 percent more on food than the typical food-insecure household of the

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same size and household composition. Fifty-seven percent of all food-insecure households participated in one or more of the three largest Federal food and nutrition assistance programs during the month prior to the 2011 survey.

**Keywords:** Food security, food insecurity, food spending, food pantry, soup kitchen, emergency kitchen, material well-being, SNAP, Food Stamp Program, National School Lunch Program, WIC

## SUMMARY

### What Is the Issue?

Most U.S. households have consistent, dependable access to enough food for active, healthy living—they are food secure. But a minority of American households experience food insecurity at times during the year, meaning that their access to adequate food is limited by a lack of money and other resources. Food and nutrition assistance programs of the U.S. Department of Agriculture (USDA) increase food security by providing low-income households access to food, a healthful diet, and nutrition education.

USDA also monitors the extent and severity of food insecurity in U.S. households through an annual, nationally representative survey sponsored by USDA's Economic Research Service. Reliable monitoring of food security contributes to the effective operation of the Federal programs as well as private food assistance programs and other government initiatives aimed at reducing food insecurity. This report presents statistics from the survey covering households' food security, food expenditures, and use of food and nutrition assistance programs in 2011.

### What Did the Study Find?

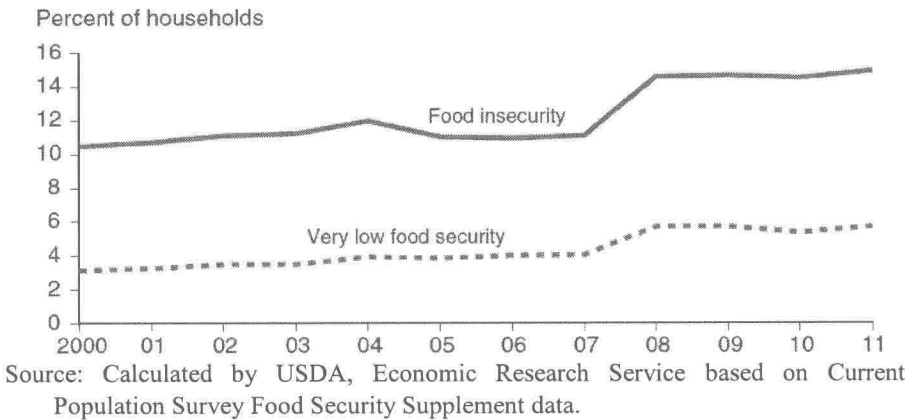
The percentage of U.S. households that were food insecure remained essentially unchanged from 2010 to 2011, while the percentage with food insecurity in the severe range—described as very low food security—increased.

- In 2011, 85.1 percent of U.S. households were *food secure* throughout the year. The remaining 14.9 percent (17.9 million households) were *food insecure*. Food-insecure households (those with low and very low food security) had difficulty at some time during the year providing enough food for all their members due to a lack of resources. The change from the 2010 estimate (14.5 percent) was not statistically significant, meaning that the difference may be due to sampling variation.
- In 2011, 5.7 percent of U.S. households (6.8 million households and one-third of all food-insecure households) had *very low food security*. In these households, the food intake of some household members was reduced and normal eating patterns were disrupted at times during the year due to limited resources. The prevalence of very low food security returned to the level observed in 2008 and 2009, a statistically significant increase from the 5.4-percent level of 2010. Increases in the prevalence of very low food security were greatest for women living alone, Black households, and households with annual incomes below 185 percent of the poverty line.
- Children were food insecure at times during the year in 10.0 percent of households with children (3.9 million households), essentially unchanged from 9.8 percent in 2010. These households were unable at times during the year to provide adequate, nutritious food for their children.
- While children are usually shielded from the disrupted eating patterns and reduced food intake that characterize very low food security, both children and adults experienced instances of very low food security in 1.0 percent of households with children (374,000 households) in 2011, unchanged from 2010.
- For households with incomes near or below the Federal poverty line, households with children headed by single women or single men, and Black and Hispanic households, rates of food insecurity were substantially higher than the national average. Food insecurity was more common in large cities and rural areas than in suburban areas and other outlying areas around large cities.
- Typically, households classified as having very low food security experienced the condition in 7 months of the year, for a few days in each of those months.

- The typical food-secure household spent 24 percent more for food than the typical food-insecure household of the same size and composition, including food purchased with Supplemental Nutrition Assistance Program (SNAP) benefits (formerly called food stamps).
- Fifty-seven percent of food-insecure households in the survey reported that in the previous month, they had participated in one or more of the three largest Federal food and nutrition assistance programs.

### How Was the Study Conducted?

Data for the ERS food security reports come from an annual survey conducted by the U.S. Census Bureau as a supplement to the monthly Current Population Survey. USDA’s Economic Research Service sponsors the annual survey and compiles and analyzes the responses. The 2011 food security survey covered 43,770 households comprising a representative sample of the U.S. civilian population of 119 million households. The food security survey asked one adult respondent in each household a series of questions about experiences and behaviors that indicate food insecurity, such as being unable to afford balanced meals, cutting the size of meals because of too little money for food, or being hungry because of too little money for food. The food security status of the household was assigned based on the number of food-insecure conditions reported.



The prevalence of food insecurity changed little since 2008-09.

## INTRODUCTION

Since 1995, the U.S. Department of Agriculture has collected information annually on food access and adequacy, food spending, and sources of food assistance for the U.S. population. The information is collected in an annual food security survey, conducted by the U.S. Census Bureau as a supplement to the nationally representative Current Population Survey.<sup>1</sup> A major impetus for this data collection is to provide information about the prevalence and severity of food insecurity in U.S. households. Previous reports in the series are available at: <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/readings.aspx/>.

This report updates the national statistics on food security, household food spending, and the use of Federal food and nutrition assistance by food-insecure households, using data collected in the December 2011 food security survey—the 17th annual survey in the Nation’s food security monitoring system. Additional statistics, including the prevalence of food insecurity during the 30 days prior to the food security survey, the frequency of occurrence of food-insecure conditions, and use of food pantries and emergency kitchens, are available online at <http://www.ers.usda.gov/publications/ap-administrative-publication/ap-058.aspx/>.

## 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 over the course of the year ending in December 2011.

### Methods

The statistics presented in this report are based on data collected in a supplement to the Current Population Survey (CPS) conducted in December 2011. The CPS currently includes about 53,000 households and is representative, at State and national levels, of the civilian, noninstitutionalized population of the United States. In December 2011, 43,770 households

completed the food security supplement; the remainder was unable or unwilling to do so. Survey sample weights were calculated by the U.S. Census Bureau to indicate how many households were represented by each household that responded to the survey.<sup>2</sup> All statistics in this report were calculated by applying the food security supplement weights to responses by the surveyed households so the statistics are nationally representative.

Unless otherwise noted, statistical differences described in the text are significant at the 90-percent confidence level.<sup>3</sup>

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 that characterize households when they are having difficulty meeting basic food needs.<sup>4</sup> Each question asks whether the condition or behavior occurred at any time during the previous 12 months and specifies a lack of money and other resources to obtain food as the reason. Voluntary fasting or dieting to lose weight is thereby excluded from the measure. The series includes three questions about food conditions of the household as a whole and seven about food conditions of adults in the household and, if there are children present in the household, an additional eight questions about their food conditions (see box, “Questions Used To Assess the Food Security of Households in the CPS Food Security Survey,” page 3). Responses to the 18 food security questions are reported in tables S-6 to S-8 of the Statistical Supplement, <http://www.ers.usda.gov/publications/ap-administrative-publication/ap-058.aspx/>. 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>

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 (see box, “What Is ‘Very Low Food Security’?” on page 5). They are further classified as having *very low food security among children* if they report five or more food-insecure conditions among the children (that is, if they respond affirmatively to five or more of questions 11-18).

### QUESTIONS USED TO ASSESS THE FOOD SECURITY OF HOUSEHOLDS IN THE CPS FOOD SECURITY SURVEY

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

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

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

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

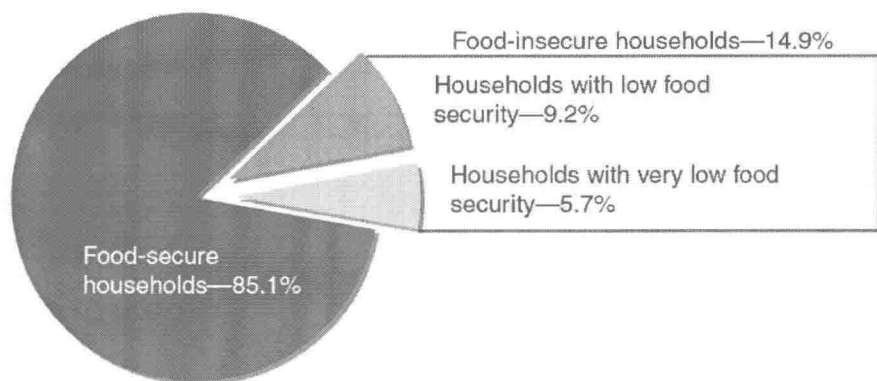
## Prevalence of Food Insecurity—National Conditions and Trends

An estimated 85.1 percent of U.S. households were food secure throughout the entire year in 2011 (figure 1, table 1A). In concept, “food



secure” means that all household members had access at all times to enough food for an active, healthy life (Anderson, 1990).<sup>7</sup> The remaining 14.9 percent (17.9 million households) were food insecure at some time during the year. That is, they were, at times, unable to acquire adequate food for one or more 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 5.7 percent (6.8 million 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 could not afford enough food.

Among U.S. households with children under age 18, 79.4 percent were food secure in 2011. In 10.6 percent, only adults were food insecure (figure 2). Both children and adults were food insecure in 10.0 percent of households with children (3.9 million households), and in about 1.0 percent (374,000 households), one or more child was 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 experienced the more severe effects of food insecurity while younger children were protected from those effects (Nord, 2009a).



Source: Calculated by USDA, Economic Research Service using data from the December 2011 Current Population Survey Food Security Supplement.

Figure 1. U.S. households by food security status, 2011.