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# Prevalence of U.S. Food Insecurity Is Related to Changes in Unemployment, Inflation, and the Price of Food

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## What Is the Issue?

The U.S. Department of Agriculture (USDA) monitors the food security of the Nation's households—their consistent access to adequate food for active healthy lives—through an annual, nationally representative food security survey. Household-level determinants of food insecurity, like education levels and household income, are well documented in earlier research. But the effects of national-level economic factors such as inflation and food prices on food security—and the extent to which changes in both household and macroeconomic factors account for year-to-year changes in the national prevalence of food insecurity—are not known. The extent to which nationally aggregated economic measures such as the unemployment rate can proxy for household-level employment and labor force data in explaining year-to-year changes in the prevalence of food insecurity is also not known.

The association of food insecurity with household characteristics and national economic conditions over 2001-12 provides insight into why food insecurity remained at about the same level in 2012 as shortly after the recession (2009-10), despite an improvement in the national unemployment rate. Providing an explanation of these relationships can increase public understanding of food insecurity and its causes and may aid in the development of food and nutrition assistance policies and programs to support the food security of the Nation's households.

## What Did the Study Find?

Three national-level economic measures taken together accounted for 92 percent of the year-to-year variation in the national prevalence of food insecurity from 2001 to 2012.

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- An increase of 1 percentage point in the *unemployment rate* (measured as the highest monthly unemployment rate in the past calendar year) was associated with an increase of 0.5 percentage point in the prevalence of food insecurity.
- An increase of 1 percentage point in *annual inflation*, as measured by the Consumer Price Index (CPI-U), was associated with a 0.5-percentage-point increase in the prevalence of food insecurity.
- An increase of 1 percent in the annual *relative price of food* (i.e., the ratio of food price to the price of all goods and services) was associated with a 0.6-percentage-point increase in the prevalence of food insecurity.

These associations help explain why the prevalence of food insecurity in 2012 remained essentially unchanged from the early post-recession period (2009-10). Based on the associations estimated in the study:

- The observed decline of 1.65 percentage points in the highest monthly unemployment rate over that period, absent other changes, would have reduced the prevalence of food insecurity by 0.9 percentage point.
- However, this potential decline was almost exactly offset by effects of higher annual inflation and higher annual relative price of food in 2012.

Given the associations estimated in this study, the expected prevalence of food insecurity in 2012 was 14.7 percent, nearly the same as the observed prevalence of 14.5 percent.

This study has potential implications for SNAP (USDA's Supplemental Nutrition Assistance Program, formerly food stamps). The associations of food insecurity with inflation and the relative price of food suggest that timely and adequate adjustment of SNAP benefits for increases in food prices may be important for food security.

## How Was the Study Conducted?

The study used data on household food security and other household characteristics from the Current Population Survey Food Security Supplement (CPS-FSS) and national statistics on unemployment and price inflation from the U.S. Bureau of Labor Statistics. The CPS-FSS is an annual, nationally representative survey of U.S. civilian households sponsored by USDA and administered by the U.S. Census Bureau. It is the source of data for USDA's series of annual reports on the food security of U.S. households.

Associations of the prevalence of food insecurity from 2001-12 with national-level economic measures were estimated using multivariate linear regression methods. Joint effects of national-level and household-level characteristics were estimated similarly. The extent to which changes in unemployment, inflation, and the relative price of food may have contributed to changes in the prevalence of food insecurity from pre-recession (2005-07) and early post-recession (2009-10) to 2012 was estimated based on results of the regression models.