

CALCULATION METHODOLOGY

Potential Increases in People Served, Total Benefits, and Economic Activity Associated With Higher Food Stamp Participation Rates

This paper describes the steps taken to estimate for each State and the Nation the potential increases in people served, annual food stamp benefits, and total economic activity that would result from increases in the participation rate among people eligible for food stamp benefits.

In general, the approach described here begins with published estimates of the number of eligible non-participants in each State in an average month of the fiscal year, calculates the number of potential new participants based on an assumed increase in the participation rate, determines the expected benefit among these potential new participants, and applies a multiplier to capture the economic stimulus generated by new food stamp expenditures. Given the limitations of existing data, the estimates here make the simplifying assumption that average benefits among non-participants are a constant fraction of average benefits among participants, and that the economic multiplier is constant across all States.

It is unlikely that any State can reach all potential participants and achieve a 100 percent participation rate. For some non-participants, the potential benefit may be too small to warrant the application; others may choose not to seek government assistance. Because the maximum achievable participation rate cannot be known with certainty, the results are presented here showing the effects if the participation rates rose by five percentage points.

It should be noted that food stamp participation usually changes between the year of the data collection and the year of the calculations in the table. Furthermore, the state participation rates exclude cases and participants who received benefits inappropriately or through a specialized process unlike a full application in a state office. As a result, although more current participation estimates are available for each year, they include the impact of disaster assistance participation and are inappropriate for this type of analysis. Thus, some of the potential gains of increasing the participation rate by 5 percentage points illustrated in the table may already have been realized by the time it is published.

The example on the next page uses national data from fiscal year 2003 to illustrate the calculation process. All column notations in the example refer to the table entitled "Potential Increases in People Served, Total Benefits, and Economic Activity If All States Served an Additional 5 Percent of Eligible" for the given fiscal year.

Example to Illustrate Calculations Using FY2003 National Data

Description	United States
<p>Step 1: Estimate the number of eligible non-participants.</p> <p><i>Reaching Those in Need: State Food Stamp Participation Rates in 2003</i> (Castner and Schirm 2005) presents estimates of the number of people eligible for food stamp benefits, the number of participants, and the participation rate for each State and the District of Columbia in an average month of fiscal year 2003. (Estimates for Guam and the Virgin Islands are not available.) The number of eligible non-participants (column 5) is the difference between the number eligible (column 3) and the number participating (column 2).</p> <p style="text-align: right;">Number of eligible non-participants:</p>	<p>37,028,000 - 20,595,000</p> <p>16,433,000</p>
<p>Step 2: Estimate the number of potential new participants.</p> <p>The number of potential new participants depends on the expected participation rate. In fiscal year 2003, state participation rates ranged from 43 percent to 83 percent, with a national average of 56 percent. The attached table assumes all States increase the fiscal year 2003 participation rate by five percentage points. The number of potential new participants (column 6) is equal to 5 percent of the estimated number of eligibles (column 3).</p> <p style="text-align: right;">Number of potential new participants:</p>	<p>37,028,000 x .05</p> <p>1,851,000</p>
<p>Step 3: Determine the expected benefit for eligible non-participants.</p> <p>Previous research has shown that people eligible for relatively large benefits are more likely to participate than people eligible for relatively small benefits. Thus, while 56 percent of the people eligible for benefits received them in 2003, they received 65 percent of the total potential benefits. The average benefit among eligible non-participants in 2003 was about two-thirds (.664) of the average among participants [derived from Table A.1 in Cunnyngham (2005)]. Information on the average monthly benefit per participant in fiscal year 2003 for each State is taken from the Food and Nutrition Service National Data Bank (downloaded on November 15, 2005). The adjusted benefit among non-participants (column 8) is equal to .664 times the average benefit among participants (column 7).</p> <p style="text-align: right;">Expected benefit for eligible non-participants:</p>	<p>\$83.90 x .664</p> <p>\$55.71</p>
<p>Step 4: Calculate value of additional food stamp benefits.</p> <p>The total annual value of additional food stamp benefits (column 9) is equal to the number of potential new participants (column 6) times their average adjusted monthly benefit among non-participants (column 8) times 12 months.</p> <p>Increasing the national participation rate by five percentage points would bring in \$1.2 billion in additional food stamp benefits (column 9).</p> <p style="text-align: right;">Value of Additional Food Stamp Benefits:</p>	<p>1,851,000 x 12 x \$55.71</p> <p>\$1,238,000,000</p>

Step 5: Calculate value of total economic activity.

Increases in food stamp benefits can stimulate additional economic activity. An increase in benefits raises spending by recipient households, which then stimulates production. Higher production boosts labor demand and household income. Increased household income triggers additional spending. Hanson and Golan (2002) estimate that an additional \$500 in food stamp expenditures triggers an increase in total economic activity of \$920. The value of total economic activity including the value of food stamps (column 10) is equal to the increase in food stamp benefits (column 9) times 1.84 (920 divided by 500 equals 1.84).

Every five percentage point increase in the national participation rate would generate a total of \$2.2 billion in economic activity (column 10).

\$1,238,000,000
x 1.84

Value of Total Economic Activity **\$2,278,000,000**

Note: Results of calculations may not exactly equal results displayed in the example due to rounding.

References

Castner, Laura, and Allen Schirm (2005). *Reaching Those in Need: State Food Stamp Participation Rates in 2003*. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service.

Cunningham, Karen (2005). *Food Stamp Program Participation Rates: 2003*. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service.

Hanson, Kenneth, and Elise Golan (2002). *Effects of Changes in Food Stamp Expenditures Across the U.S. Economy*. Washington, DC: U.S. Department of Agriculture, Economic Research Service.