Introduction

The Program Access Index (PAI) is one of the measures FNS uses to reward States for high performance in the administration of the Food Stamp Program. Performance awards were authorized by the Farm Security and Rural Investment Act of 2002 (also known as the Farm Bill). The PAI is designed to indicate the degree to which low-income people have access to food stamp benefits.

The PAI is not, strictly speaking, a measure of participation among people eligible for benefits. For most purposes, the participation rate among people eligible for benefits is a better measure of program performance.[1] FNS uses the poverty-based PAI because it is the best measure available in time to meet the law's requirements. The 2002 Farm Bill that authorizes the State performance awards requires payment by the end of the fiscal year following the period of performance – by September 2005 for performance during fiscal year 2004, for example. The timing of the release of the official poverty statistics each year enables calculation of a PAI in time to meet the law's requirements. There is not enough time to complete the more precise estimates of the number of people eligible for food stamp benefits. Waiting for the more precise estimates is inconsistent with the law and would also delay payments to States.

The purpose of this step-by-step guide is to describe the calculation of the PAI in detail. It includes all of the data, adjustments, and calculations used in determining the PAI for every State in 2004.

---

[1] See for example *Reaching Those in Need: State Food Stamp Participation Rates in 2002* by Laura Castner and Allen Schirm, available on-line at www.fns.usda.gov/oane.

Calculating the PAI

In general, the PAI is a simple index of the average monthly number of food stamp participants over the course of a calendar year to the number of people with income below the official poverty line in each State.[2] FNS computes average monthly participation over a calendar year – rather than the Federal fiscal year – to better align the participation count with the annual poverty measure.

FNS makes two adjustments to the counts of participants, the numerator of this index, to better reflect State performance in the administration of the Food Stamp Program. First, FNS adds participants in the Food Distribution Program on Indian Reservations (FDPIR). These participants would qualify for food stamps, but have opted to take the FDPIR commodity package instead. This adjustment ensures that States with relatively large numbers of FDPIR participants are not disadvantaged in the competition for performance bonuses. In addition, FNS subtracts out estimates of the number of people who received food stamp disaster assistance. Disaster assistance is approved in limited circumstances and operates under special rules that differ from those of the regular Food Stamp Program. The adjustment is intended to account for only those disaster assistance recipients who are new to the program – not existing participants who are issued replacement benefits. The quality of this adjustment depends in part on the accuracy of

---

[2] This description is based on the guidelines governing award of the 2003 and 2004 performance bonus. FNS issued a final rule on February 7, 2005 codifying the procedures for calculating and awarding performance bonuses. The final rule would modify the calculation of the PAI for calendar year 2005 and beyond. In addition, the final rule changed the name of the measure to the Program Access Index (PAI).

data reported by States to FNS on the operations of disaster assistance programs.

FNS makes one adjustment to the poverty counts, the denominator of the index, removing poor SSI recipients in California. By law, SSI recipients in California are ineligible for food stamps because they receive a State-funded cash supplement for food. This adjustment – which increases the PAI in California – helps level the playing field between California and all other States.

FNS awards performance bonuses to the four States with the highest PAI and to the four States with the most improved PAI. If a State qualifies under both the best and most improved criteria, it is awarded the bonus for most improved, and the State with the next highest PAI is awarded a bonus for best performance.

Step-By-Step Guide

The description that follows provides a step-by-step description of the calculation of the PAI, using the calculation of the 2004 PAI for West Virginia as an example. The column references in the West Virginia example as well as the calculations for all States can be found in the accompanying Excel Workbook.

Description	Example (West Virginia)
Step 1: Determine number of food stamp participants (CY 2004) The number of annual food stamp participants is the sum of the monthly counts from January to December 2004. The monthly counts are extracted from the Food and Nutrition Service National Data Bank and displayed in the *FSP Participants* worksheet. The annual total is calculated in the last column of *FSP Participants*, and carried into Column B of *PAI Calculation*.	Column B: 3,091,137
Step 2: Determine number of FDPIR participants (CY 2004) The number of annual FDPIR participants is the sum of the monthly counts from January to December 2004. The monthly counts are extracted from the Food and Nutrition Service National Data Bank and displayed in the *FDPIR Participants* worksheet. The annual total is calculated in the last column of *FDPIR Participants*, and carried into Column C of *PAI Calculation*.	Column C: 0
Step 3: Determine number of disaster assistance participants (CY 2004) The number of disaster assistance participants is calculated in the *Disaster Assistance* worksheet. Column B displays the number of State-reported individuals receiving disaster assistance. The annual total for all States is displayed in Column B of *Disaster Assistance*, and carried into Column D of *PAI Calculation*.	Column D: 0

Step 4: **Calculate adjusted number of annual participants (CY 2004)** The adjusted annual number of participants is the annual number of FSP participants (Column B) plus the annual number of FDPIR participants (Column C) minus the number of disaster assistance recipients (Column D).	Column E: 3,091,137 + 0 - 0 =3,091,137
Step 5: **Calculate adjusted average monthly participants (CY 2004)** The adjusted monthly average number of participants is equal to the annual number (Column E) divided by 12.	Column F: 3,091,137 ÷ 12 = 257,595
Step 6: **Determine the number of individuals with income below poverty** Estimates of the number of people in poverty are published annually by the Bureau of the Census. The Census Bureau estimates for 2004 are available here and are displayed in Column G.	Column G: 254,000
Step 7: **Calculate adjustment for SSI recipients in California** This adjustment is based on the percentage of SSI recipients among the population with income below the official poverty threshold in California. To meet the statutory deadline for making the performance awards, FNS uses poverty data from the prior year to make this estimate. In 2003, 3.9 percent of poor individuals in California received SSI. Column H calculates 3.9 percent of the poverty count in California in 2004.	Column H: N/A
Step 8: **Calculate adjusted number of people with income below poverty** For California, the adjusted number of people in poverty (Column I) is equal to the official poverty count (Column G) minus the SSI Adjustment (Column H). The adjustment is not applied in any other State.	Column I: 254,000
Step 9: **Calculate the Program Access Index for 2004** The final PAI is an index of the adjusted count of participants to the adjusted estimate of persons living below the official poverty line, Column F divided by Column I.	Column J: 257,595 ÷254,000 = 1.014
Step 10: **Rank Order States by Program Access Index** State rankings are determined in descending order, from highest to lowest. The four (4) States with the highest ranks qualify for a performance award for best performance.	Column K: 3

Step 11: Determine the Program Access Index for 2003 The 2003 PAI was calculated in the same fashion, using prior year data.	Column L: 0.805
Step 12: Calculate the difference between 2004 and 2003 PAIs The difference is equal to the 2004 PAI (Column J) minus the 2003 PAI (Column L). This provides the percentage point difference between 2004 and 2003. A positive difference indicates improvement; a negative difference indicates a reduction.	Column M: 1.014 - 0.805 = 0.209
Step 13: Rank Order States by the difference in 2004 and 2003 PAIs State rankings are determined in descending order, from highest to lowest. The four (4) States with the highest ranks qualify for a performance award for most improved.	Column N: 2