

Reaching Those in Need:

STATE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM PARTICIPATION RATES IN 2008



FOOD AND NUTRITION SERVICE



Recent studies have examined national participation rates as well as participation rates for socioeconomic and demographic subgroups (Leftin 2010), and State rates for all eligible people and for the working poor (Cun-nyngnam and Castner 2009). This document presents estimates of SNAP participation rates for all eligible people and for the working poor by State for fiscal year 2008. These estimates can be used to assess recent program performance and focus efforts to improve performance.



Participation Rates in 2008

As reported in Leftin (2010), 67 percent of eligible people in the United States received SNAP benefits in fiscal year 2008.¹ Participation rates varied widely from State to State, however. Twenty States had rates that were significantly higher (in a statistical sense) than the national rate, and 19 States had rates that were significantly lower. Among the regions, the Midwest Region had the highest participation rate. Its 74 percent rate was significantly higher than the rates for all of the other regions. The Western Region's participation rate of 58 percent was significantly lower than the rates for all of the other regions. (See the last page for a map showing regional boundaries.)

¹After Leftin 2010 was issued, corrections to Missouri participation data resulted in a 0.5 percentage point drop in the estimated national SNAP participation rate from 66.8 percent to 66.3 percent. The analysis and results presented here are based on the new data, so the corrected estimated national rate, rounded to 66 percent, appears in the subsequent tables and text.

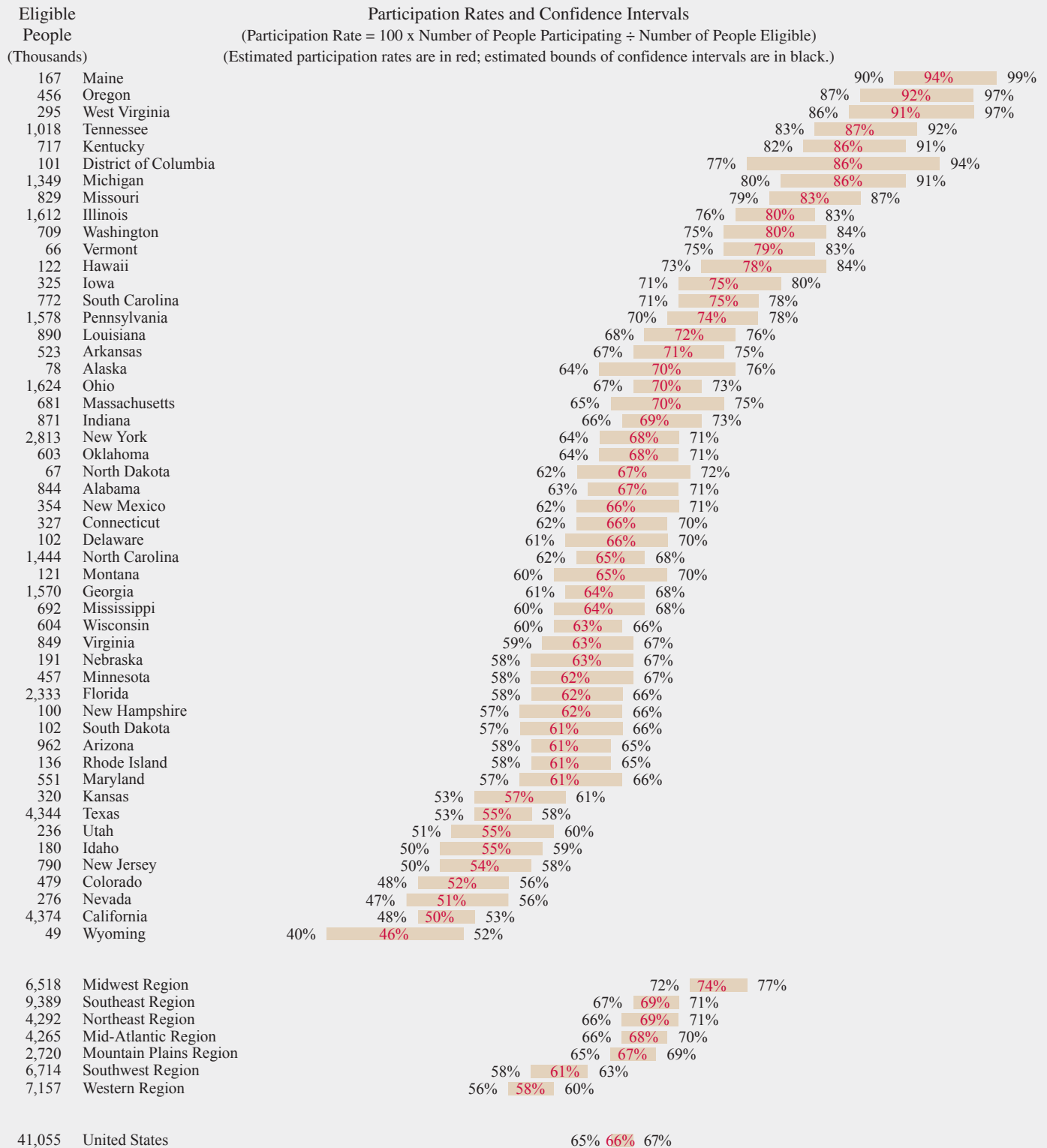
The Supplemental Nutrition Assistance Program (SNAP)—formerly the Food Stamp Program—is a central component of American policy to alleviate hunger and poverty. The program's main purpose is “to permit low-income households to obtain a more nutritious diet...by increasing their purchasing power” (Food and Nutrition Act of 2008). SNAP is the largest of the domestic food and nutrition assistance programs administered by the U.S. Department of Agriculture's Food and Nutrition Service. During fiscal year 2010, the program served 40 million people in an average month at a total annual cost of almost \$65 billion in benefits.

The Government Performance and Results Act of 1993 calls for policymakers to assess the effects of programs, and one important measure of a program's performance is its ability to reach its target population. The national SNAP participation rate—the percentage of eligible

people in the United States who actually participate in the program—has been a standard for assessing performance for about 25 years. The U.S. Department of Agriculture's budget request for fiscal year 2011 includes a performance target to reach 68.5 percent of the eligible population in that year.

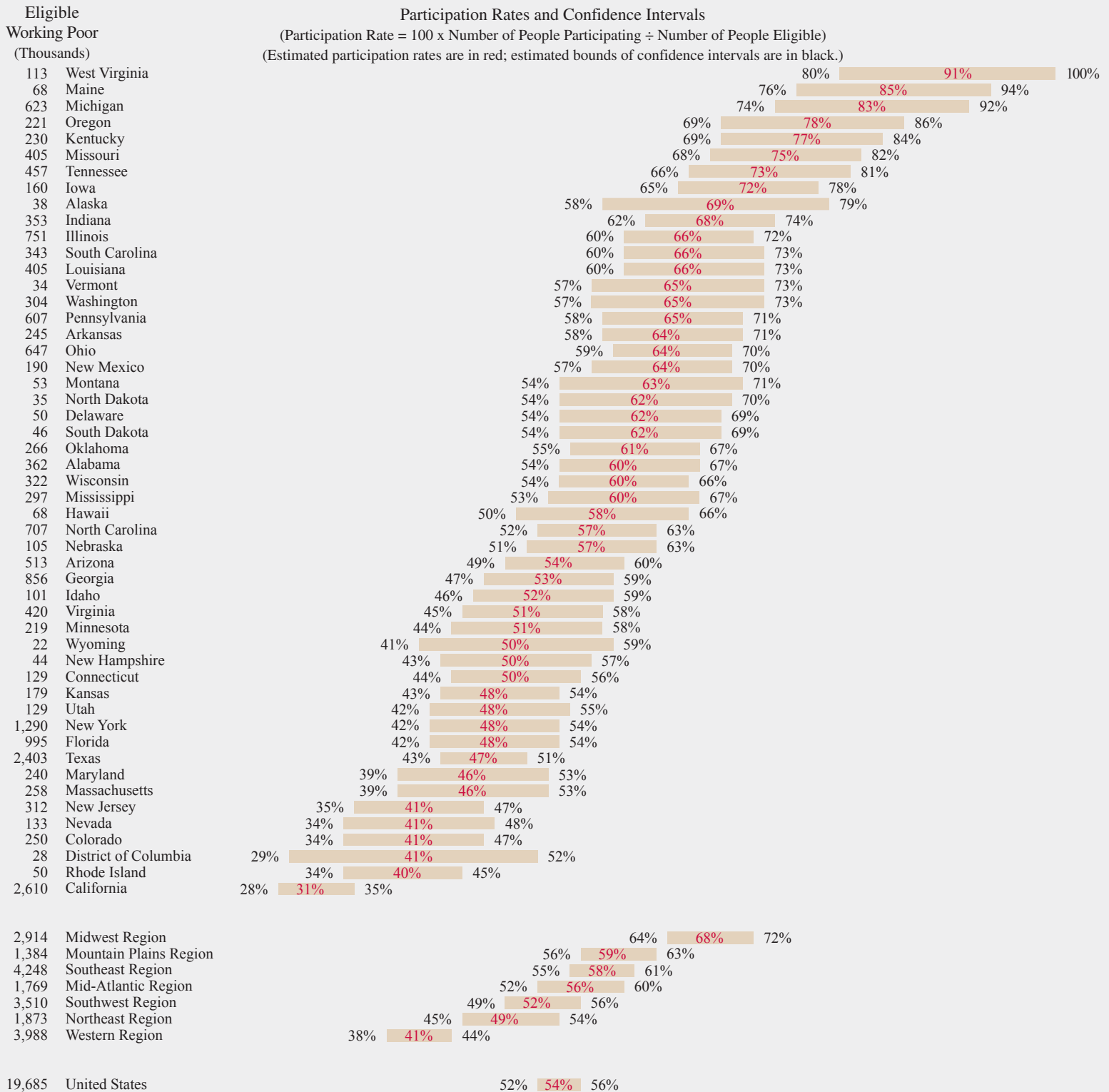
SNAP provides an important support for the “working poor”—people who are eligible for SNAP benefits and live in households in which someone earns income from a job. Thirty-three million people received benefits in an average month in 2009. Thirteen million—almost 40 percent—lived in households that had income from earnings, up from 30 percent of all participants in 1996, the year in which more emphasis was placed on work for public assistance recipients through the enactment of the Personal Responsibility and Work Opportunity Reconciliation Act.

How Many Were Eligible in 2008? What Percentage Participated?



A confidence interval expresses our uncertainty about the true value of a participation rate. Each interval displayed here is a 90-percent confidence interval. One interpretation of such an interval is that there is a 90-percent chance that the true participation rate falls within the estimated bounds. For example, while our best estimate is that New Mexico's participation rate was 66 percent in 2008, the true rate may have been higher or lower. However, the chances are 90 in 100 that the true rate was between 62 and 71 percent.

How Many Working Poor Were Eligible in 2008? What Percentage Participated?



A confidence interval expresses our uncertainty about the true value of a participation rate. Each interval displayed here is a 90-percent confidence interval. One interpretation of such an interval is that there is a 90-percent chance that the true participation rate falls within the estimated bounds. For example, while our best estimate is that Arkansas's working poor participation rate was 64 percent in 2008, the true rate may have been higher or lower. However, the chances are 90 in 100 that the true rate was between 58 and 71 percent.

In 2008, 54 percent of eligible working poor in the United States participated in SNAP, but as with participation rates for all eligible people, rates for the working poor varied widely across States. Twenty-seven States had rates for the working poor that were significantly higher than the national rate, and 13 States had rates that were significantly lower.

While 66 percent of all eligible people in the United States participated in 2008, only 54 percent of the eligible working poor participated, a significant difference of 12 percentage points. In 37 States, the participation rate for the working poor in 2008 was—like the national rate for the working poor—significantly lower than the rate for all eligible people. In 6 of these States, the difference between the rate for the working poor and the rate for all eligible people was significantly greater than the 12 percentage points difference between the national rates. In no State was the rate for the working poor significantly higher than the rate for all eligible people.

State Comparisons

The estimated participation rates presented here are based on fairly small samples of households in each State. Although there is substantial uncertainty associated with the estimates for some States and with comparisons of estimates from different States, the estimates for 2008 show whether a State's participation rate for all eligible people was probably at the top, at the bottom, or in the middle of the distribution. Maine, Oregon, and West Virginia were very likely at the top, with higher rates for all eligible people than all other States. In contrast, California and Wyoming likely had lower rates than most States.

Similarly, it is possible to determine that some States were probably at the top, at the bottom, or in the middle of the distribution of rates for the

working poor in 2008. West Virginia, Maine, and Michigan were very likely ranked at the top, with higher rates for the working poor than most States. In contrast, California likely had a lower rate than most States.

How a State compares with other States may fluctuate over time due to statistical variability in estimated rates and true changes in rates. The statistical variability is sufficiently great that a large change in a State's rate from the prior year should be interpreted cautiously, as should differences between the rates of that State and other States. It may be incorrect to conclude that program performance in the State has improved or deteriorated dramatically. Despite this uncertainty, the estimated participation rates for all eligible people and the working poor suggest that some States have been fairly consistently in the top or bottom of the distribution of rates in recent years. In all 3 years from 2006 to 2008, the District of Columbia, Illinois, Kentucky, Maine, Michigan, Missouri, Oregon, Tennessee, Washington, and West Virginia had significantly higher participation rates for all eligible people than two-thirds of the States. An additional 6 States—Arkansas, Hawaii, Louisiana, Pennsylvania, South Carolina, and Vermont—had significantly higher rates than half of the States. Arizona, Kansas, New Hampshire, Rhode Island, and Texas had significantly lower rates than half of the States in all 3 years, while California, Colorado, Idaho, New Jersey, Nevada, Utah, and Wyoming had significantly lower rates than two-thirds of the States.

A State ranked near the top or bottom of the distribution of participation rates for all eligible people is likely to be ranked near the top or bottom, respectively, of the distribution of participation rates for the working poor. Although the rankings of States by participation rates for the working poor and for all eligible people are generally similar, they do not exactly

match. Six States (Idaho, Indiana, Montana, South Dakota, Wisconsin, and Wyoming) are ranked significantly higher for all 3 years when ranked by their participation rate for the working poor than when ranked by their participation rate for all eligible people. In contrast, Connecticut, the District of Columbia, Hawaii, Massachusetts, and Rhode Island are ranked significantly lower for all 3 years when ranked by their participation rate for the working poor than when ranked by their participation rate for all eligible people.

Estimation Method

The estimates presented here were derived using shrinkage estimation methods developed to improve precision when sample sizes are small, as they are for most states in the Current Population Survey (Cunyngham, Castner, and Schirm 2010, and Cunyngham, Castner, and Schirm forthcoming). Drawing on data from the Current Population Survey, the American Community Survey, and administrative records, the shrinkage estimator averaged sample estimates of participation rates with predictions from a regression model. The sample estimates were obtained by applying SNAP eligibility rules to households in the Current Population Survey to estimate numbers of eligible people and eligible working poor, while estimating numbers of participating people and participating working poor from SNAP administrative data. The "working poor" are defined as people who are eligible for SNAP and live in a household in which a member earns money from a job. The regression predictions of participation rates were based on observed indicators of socioeconomic conditions, such as the percentage of the total State population receiving SNAP

Participation Rates

	All Eligible People			Working Poor		
	2006	2007	2008	2006	2007	2008
Alabama	67%	66%	67%	60%	62%	60%
Alaska	74%	74%	70%	69%	62%	69%
Arizona	61%	60%	61%	56%	55%	54%
Arkansas	75%	75%	71%	69%	69%	64%
California	50%	49%	50%	35%	34%	31%
Colorado	57%	55%	52%	46%	45%	41%
Connecticut	70%	66%	66%	52%	51%	50%
Delaware	72%	69%	66%	69%	58%	62%
District of Columbia	84%	80%	86%	40%	39%	41%
Florida	59%	57%	62%	49%	48%	48%
Georgia	67%	62%	64%	56%	52%	53%
Hawaii	76%	75%	78%	58%	58%	58%
Idaho	53%	50%	55%	51%	52%	52%
Illinois	80%	81%	80%	68%	67%	66%
Indiana	72%	71%	69%	71%	67%	68%
Iowa	70%	75%	75%	66%	70%	72%
Kansas	59%	58%	57%	49%	49%	48%
Kentucky	79%	83%	86%	71%	79%	77%
Louisiana	80%	77%	72%	74%	69%	66%
Maine	89%	89%	94%	81%	86%	85%
Maryland	64%	59%	61%	48%	44%	46%
Massachusetts	66%	64%	70%	42%	47%	46%
Michigan	84%	91%	86%	84%	84%	83%
Minnesota	64%	64%	62%	52%	53%	51%
Mississippi	63%	66%	64%	59%	58%	60%
Missouri	85%	84%	83%	77%	76%	75%
Montana	63%	65%	65%	60%	64%	63%
Nebraska	62%	63%	63%	54%	58%	57%
Nevada	53%	51%	51%	46%	37%	41%
New Hampshire	62%	60%	62%	49%	53%	50%
New Jersey	57%	54%	54%	43%	44%	41%
New Mexico	74%	70%	66%	71%	64%	64%
New York	64%	61%	68%	46%	49%	48%
North Carolina	64%	64%	65%	57%	57%	57%
North Dakota	57%	62%	67%	51%	59%	62%
Ohio	70%	69%	70%	65%	61%	64%
Oklahoma	72%	70%	68%	65%	63%	61%
Oregon	89%	92%	92%	77%	80%	78%
Pennsylvania	71%	72%	74%	62%	67%	65%
Rhode Island	56%	56%	61%	35%	40%	40%
South Carolina	75%	74%	75%	66%	63%	66%
South Dakota	58%	61%	61%	56%	58%	62%
Tennessee	86%	86%	87%	72%	75%	73%
Texas	63%	56%	55%	54%	47%	47%
Utah	58%	53%	55%	49%	50%	48%
Vermont	73%	73%	79%	59%	66%	65%
Virginia	64%	62%	63%	50%	52%	51%
Washington	80%	79%	80%	66%	63%	65%
West Virginia	80%	87%	91%	80%	95%	91%
Wisconsin	60%	63%	63%	57%	60%	60%
Wyoming	48%	45%	46%	47%	47%	50%
Mid-Atlantic Region	67%	66%	68%	55%	57%	56%
Midwest Region	74%	76%	74%	69%	68%	68%
Mountain Plains Region	67%	68%	67%	59%	60%	59%
Northeast Region	65%	63%	69%	48%	50%	49%
Southeast Region	68%	67%	69%	59%	58%	58%
Southwest Region	68%	62%	61%	59%	53%	52%
Western Region	58%	57%	58%	45%	43%	41%
United States	67%	65%	66%	56%	55%	54%

There is substantial uncertainty associated with most of these estimates. Confidence intervals that measure the uncertainty in the estimates for 2006 and 2007 are presented in Cunningham, Castner, and Schirm (forthcoming). These confidence intervals are generally about as wide as the confidence intervals that are presented in this document for the 2008 estimates.

benefits. The shrinkage estimates presented here are substantially more precise than the direct sample estimates from the Current Population Survey.

After Leftin (2010) was published, Missouri corrected the reported number of individuals participating in SNAP in that state. The State and national estimates presented here incorporate the corrected Missouri data. In addition, the methodology used to calculate standard errors of estimates of eligibles was updated from previous reports in this series to use information recently made available by the U.S. Census Bureau.

Because the Current Population Survey does not collect data on participation in the Food Distribution Program on Indian Reservations, the estimates presented here were not adjusted to reflect the fact that participants in that program were not eligible to receive SNAP benefits at the same time (Leftin 2010). The Food Distribution Program on Indian Reservations served about 90,000 people in 2008, so the effects of such adjustments would be negligible in almost all States.

Because our focus in this document is on participation among people who were eligible for SNAP, the estimates of eligible people were adjusted using available data to reflect the fact that Supplemental Security Income recipients in California are not legally eligible to receive SNAP benefits because they receive cash instead.² It might be useful in some other contexts, however, to consider participation rates among those eligible for SNAP benefits or a cash substitute.

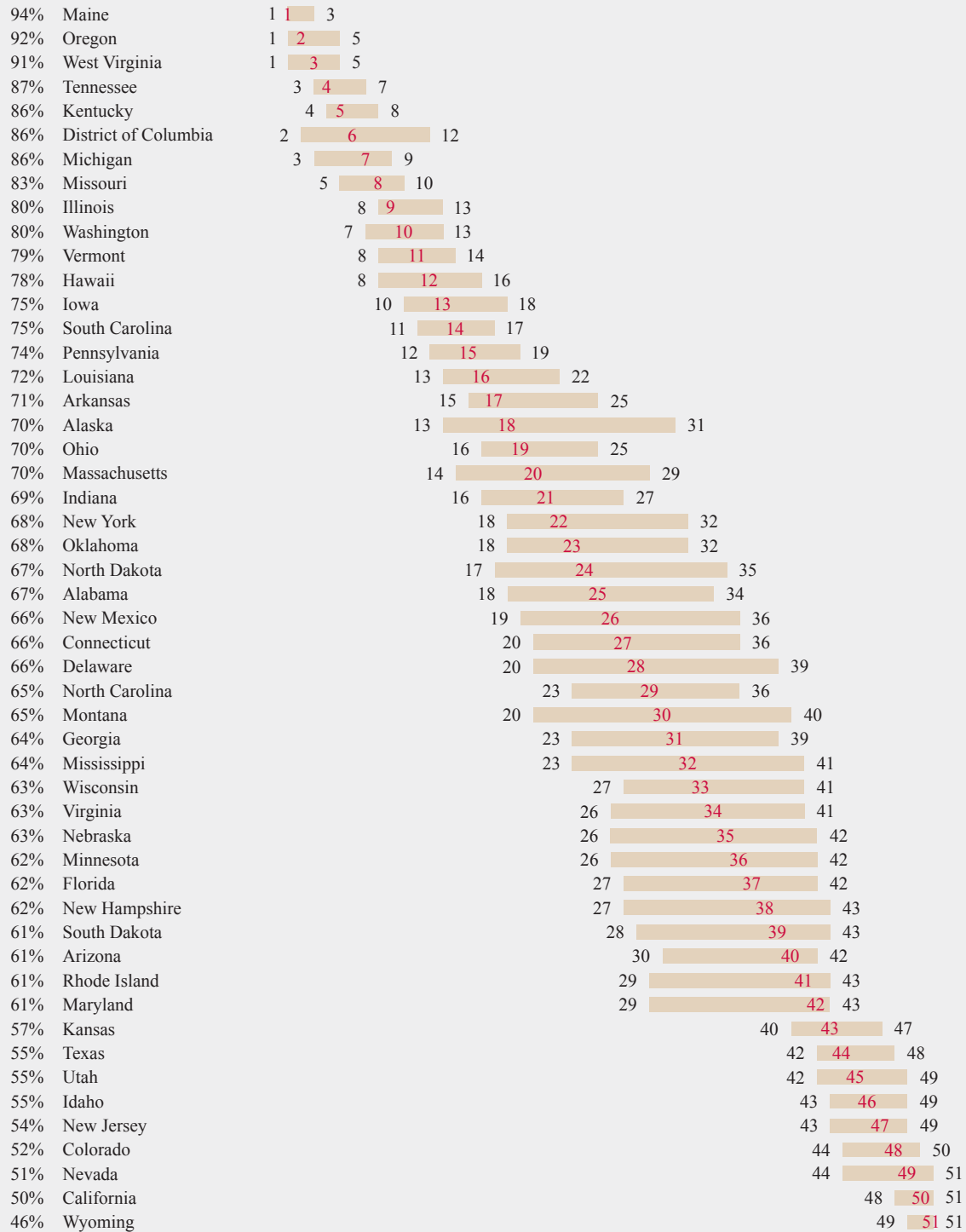
²About 1.2 million Supplemental Security Income recipients in California receive a small food assistance benefit through the State supplement. Less than half of these recipients would be eligible for SNAP under current program rules.

How Did Your State Rank in 2008?

Participation
Rate for
All Eligible
People

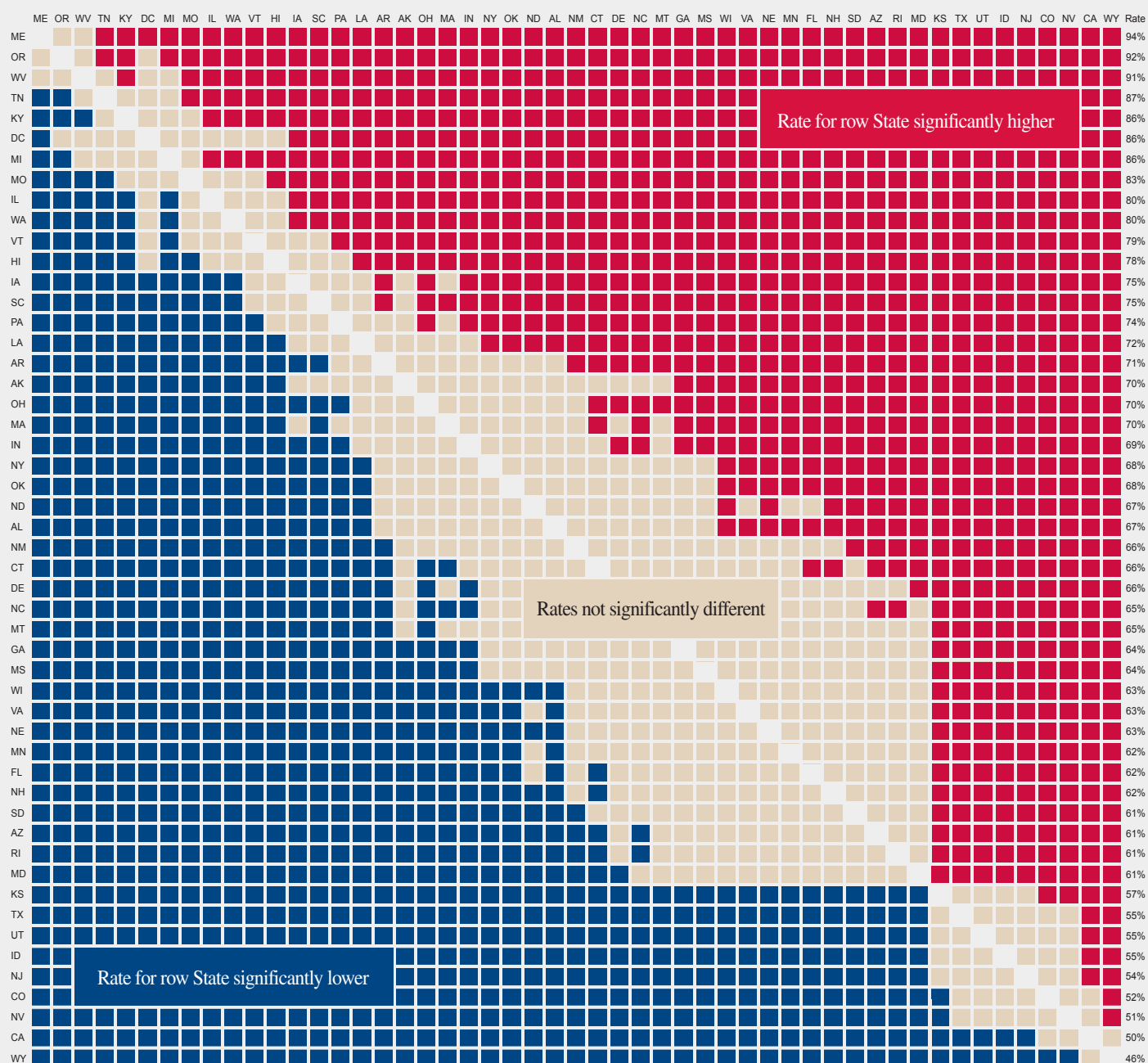
Ranks and Confidence Intervals

(Estimated ranks are in red; estimated bounds of confidence intervals are in black.)



A confidence interval expresses our uncertainty about the true value of a State's rank. Each interval displayed here is a 90-percent confidence interval. One interpretation of such an interval is that there is a 90-percent chance that the true rank falls within the estimated bounds. For example, while our best estimate is that New Mexico had the 26th highest participation rate in 2008, the true rank may have been higher or lower. However, the chances are 90 in 100 that the true rank was between 19 and 36 among all of the States. To determine how New Mexico or your State compares with any other State, see the chart on page 7.

How Did Your State Compare with Other States in 2008 for All Eligibles?

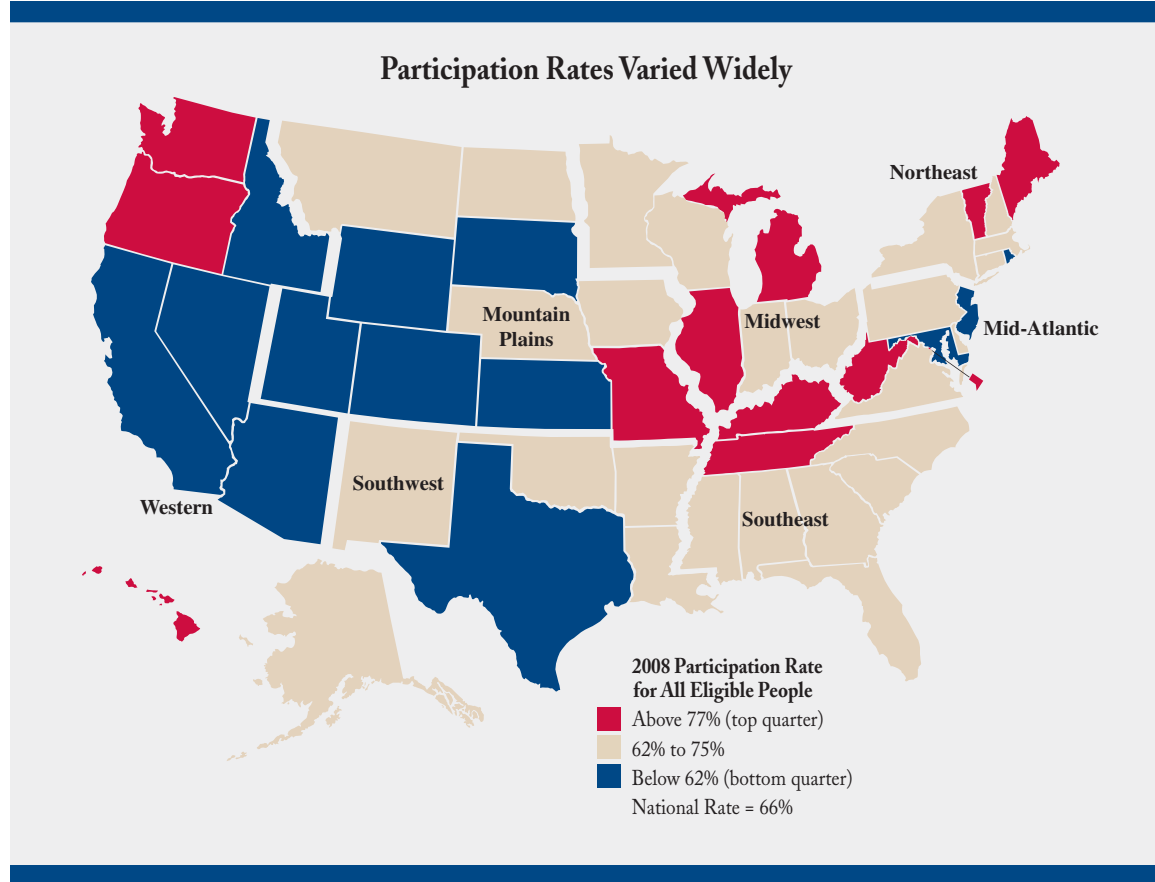


Whether one State has a significantly higher participation rate than a second State can be determined from this figure by finding the row for the first State at the left of the figure and the column for the second State at the top of the figure. If the box where the row and column intersect is red, there is at least a 90-percent chance that the first State (the row State) has a higher true participation rate. If the box is blue, there is at least a 90-percent chance that the second State (the column State) has a higher true participation rate. Equivalently, there is less than a 10-percent chance that the first State has a higher rate. If the box is tan, there is more than a 10-percent chance but less than a 90-percent chance that the first State has a higher rate; thus, we conclude that neither estimated rate is significantly higher.

Taking New Mexico, the State in the middle of the distribution, as an example, we see that it had a significantly lower participation rate than 17 other States (Maine, Oregon, West Virginia, Tennessee, Kentucky, the District of Columbia, Michigan, Missouri, Illinois, Washington, Vermont, Hawaii, Iowa, South Carolina, Pennsylvania, Louisiana, and Arkansas) and a significantly higher rate than 13 other States (Wyoming, California, Nevada, Colorado, New Jersey, Idaho, Utah, Texas, Kansas, Maryland, Rhode Island, Arizona, and South Dakota). Its rate was neither significantly higher nor significantly lower than the rates for the other 20 States, suggesting that New Mexico is probably in the broad center of the distribution, unlike, for example, Maine and Wyoming, which were surely at or near the top and bottom of the distribution, respectively. Although we use the statistical definition of “significance” here, most of the significant differences were at least 10 percentage points, a difference that seems important as well as significant, and all of them were at least 4 percentage points.



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Although our focus is on participation among people who were eligible for SNAP, no data are available to estimate the number of people who would have failed the program's income tests but were categorically eligible for SNAP benefits through participation in noncash public assistance programs. Therefore, because such people could not be included in estimates of eligible people, they were also excluded from the estimates of participating people. Leftin (2010) presents details on the methods used to estimate the numbers of eligible and participating people used in deriving the participation rates presented here.

References

Cunyngham, Karen E., Laura A. Castner, and Allen L. Schirm. "Empirical Bayes Shrinkage Estimates of State Supplemental Nutrition Assistance Program Rates in 2006-2008 for All Eligible People and the Working Poor." Washington, DC: Mathematica Policy Research, forthcoming.

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