

Reaching Those in Need:

STATE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM PARTICIPATION RATES IN 2009



The Supplemental Nutrition Assistance Program (SNAP) 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 2011, the program served nearly 45 million people in an average month at a total annual cost of over \$70 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 2012 includes a performance target to reach 71.3 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. Forty million people received benefits in an average month in 2010. Sixteen million—almost 41 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.

Recent studies have examined national participation rates as well as participation rates for socioeconomic and demographic subgroups (Leftin et al. 2011), and State rates for all eligible people and for the working poor (Cunningham and Castner 2010). This document presents estimates of SNAP participation rates for all eligible people and for the working poor by States for fiscal year 2009. These estimates can be used to assess recent program performance and focus efforts to improve performance.

Participation Rates in 2009

As reported in Leftin et al. (2011), 72 percent of eligible people in the United States received SNAP benefits in fiscal year 2009. Participation rates varied widely from State to State, however. Eighteen States had rates that were significantly higher (in a statistical sense) than the national rate, and 12 States had rates that were significantly lower. Among the regions, the Midwest Region had the highest participation rate. Its 82 percent rate was significantly higher than the rates for all of the other regions. The Western Region's participation rate of 63 percent was significantly lower than the rates for all of the other regions. (See the last page for a map showing regional boundaries.)

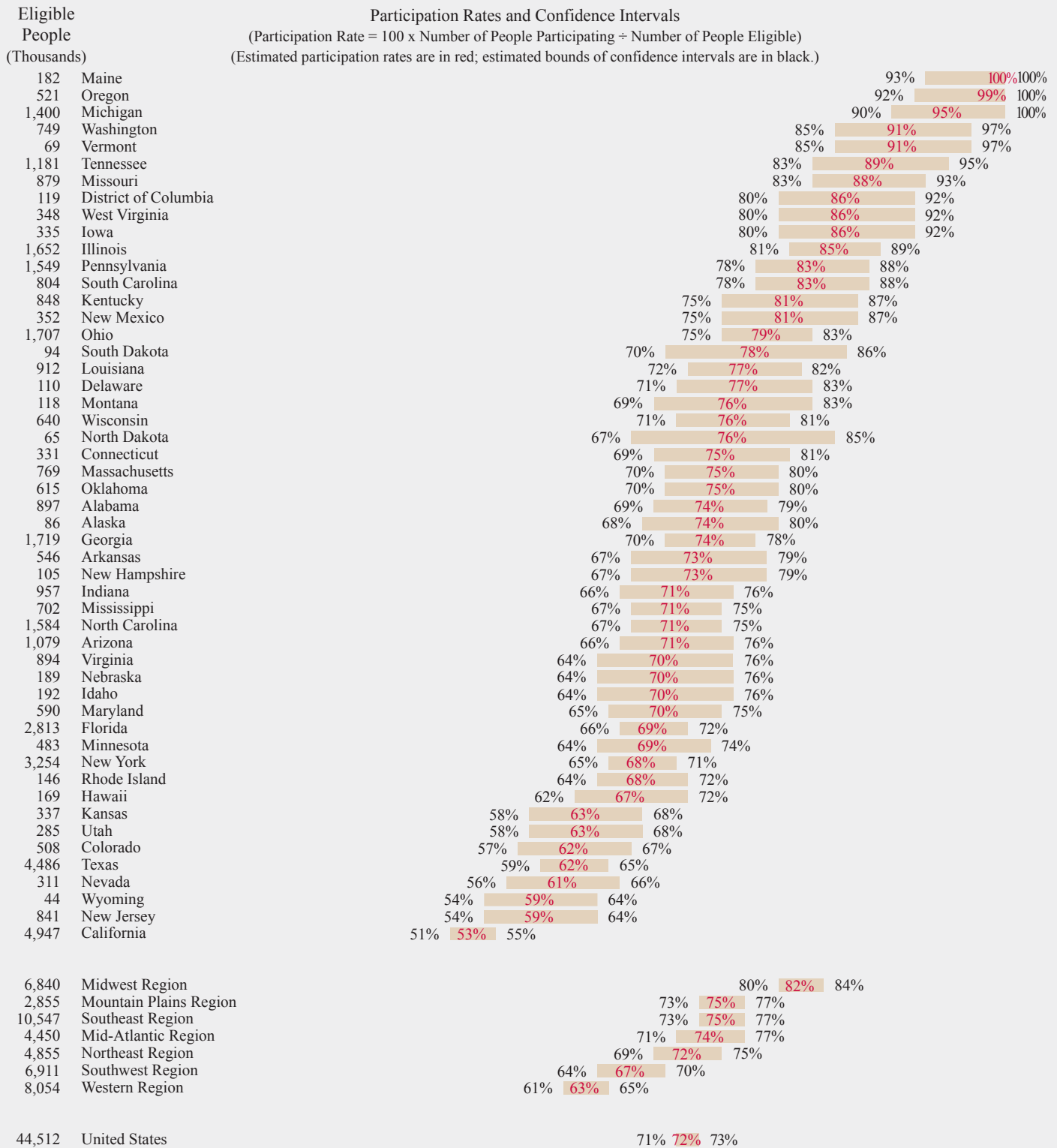
In 2009, 60 percent of eligible working poor in the United States participated in SNAP, but as with participation rates for all eligible



FOOD AND
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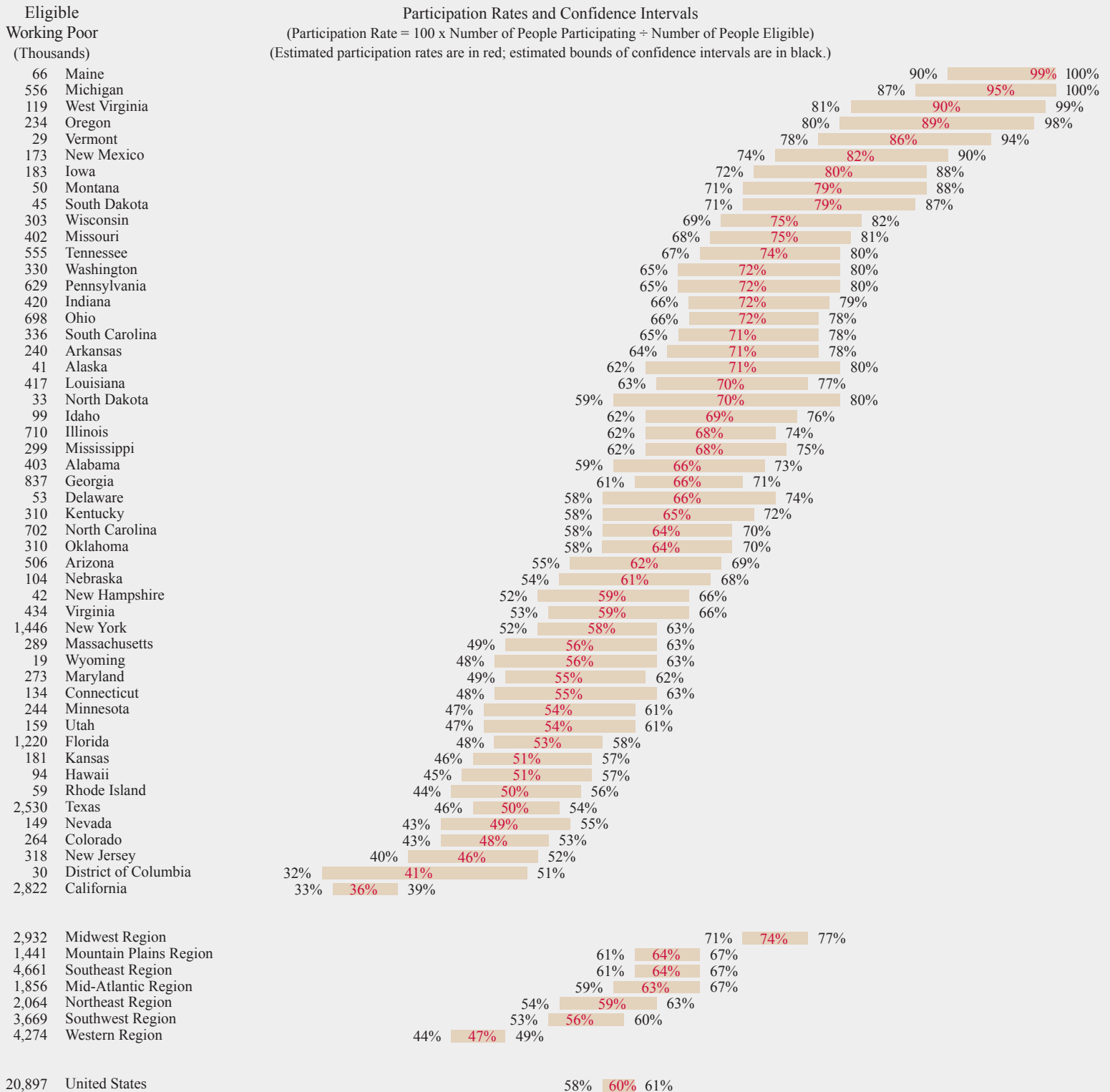


How Many Were Eligible in 2009? What Percentage Participated?



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 Oklahoma's participation rate was 75 percent in 2009, the true rate may have been higher or lower. However, the chances are 90 in 100 that the true rate was between 70 and 80 percent.

How Many Working Poor Were Eligible in 2009? 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 Mississippi's working poor participation rate was 68 percent in 2009, the true rate may have been higher or lower. However, the chances are 90 in 100 that the true rate was between 62 and 75 percent.

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 12 States had rates that were significantly lower.

While 72 percent of all eligible people in the United States participated in 2009, only 60 percent of the eligible working poor participated, a significant difference of 12 percentage points. In 35 States, the participation rate for the working poor in 2009 was—like the national rate for the working poor—significantly lower than the rate for all eligible people. In 8 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 2009 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 and Oregon were very likely at the top, with higher rates for all eligible people than all other States. In contrast, California likely had a lower rate than other 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 2009. Maine and Michigan were very likely ranked

at the top, with higher rates for the working poor than most States. In contrast, California and the District of Columbia likely had lower rates 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 2007 to 2009, Iowa, Illinois, 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 4 States—Kentucky, Pennsylvania, South Carolina, and Vermont—had significantly higher rates than half of the States. Colorado, Florida, Kansas, New York, Rhode Island, and Texas had significantly lower rates than half of the States in all 3 years, while California, 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. Nine States (Idaho,

Indiana, Mississippi, Montana, New Mexico, Utah, Wisconsin, West Virginia, 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, Illinois, Massachusetts, Tennessee, and Washington 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 (Cunningham, Castner, and Schirm 2011, and Cunningham, Castner, and Sukasih forthcoming). Drawing on data from the Current Population Survey, the American Community Survey, and administrative records, the shrinkage estimator averaged direct sample estimates of participation rates with predictions from a regression model. The direct 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,

Participation Rates

	All Eligible People			Working Poor		
	2007	2008	2009	2007	2008	2009
Alabama	68%	70%	74%	62%	63%	66%
Alaska	82%	80%	74%	77%	80%	71%
Arizona	63%	67%	71%	53%	60%	62%
Arkansas	78%	77%	73%	75%	72%	71%
California	51%	53%	53%	34%	33%	36%
Colorado	60%	59%	62%	48%	46%	48%
Connecticut	68%	70%	75%	48%	51%	55%
Delaware	74%	74%	77%	65%	67%	66%
District of Columbia	77%	76%	86%	33%	29%	41%
Florida	56%	61%	69%	44%	45%	53%
Georgia	64%	68%	74%	58%	58%	66%
Hawaii	69%	73%	67%	53%	57%	51%
Idaho	62%	66%	70%	64%	63%	69%
Illinois	87%	87%	85%	69%	69%	68%
Indiana	73%	74%	71%	72%	74%	72%
Iowa	84%	85%	86%	80%	79%	80%
Kansas	62%	61%	63%	53%	50%	51%
Kentucky	81%	85%	81%	69%	70%	65%
Louisiana	79%	77%	77%	74%	69%	70%
Maine	100%	100%	100%	97%	99%	99%
Maryland	58%	63%	70%	44%	49%	55%
Massachusetts	64%	70%	75%	44%	50%	56%
Michigan	98%	97%	95%	94%	96%	95%
Minnesota	66%	66%	69%	54%	52%	54%
Mississippi	66%	68%	71%	64%	63%	68%
Missouri	89%	91%	88%	76%	79%	75%
Montana	79%	81%	76%	85%	82%	79%
Nebraska	69%	69%	70%	64%	61%	61%
Nevada	55%	59%	61%	41%	44%	49%
New Hampshire	67%	72%	73%	56%	60%	59%
New Jersey	54%	56%	59%	44%	44%	46%
New Mexico	76%	75%	81%	77%	73%	82%
New York	62%	66%	68%	53%	51%	58%
North Carolina	64%	68%	71%	59%	62%	64%
North Dakota	70%	79%	76%	67%	71%	70%
Ohio	76%	79%	79%	69%	73%	72%
Oklahoma	76%	74%	75%	65%	63%	64%
Oregon	96%	96%	99%	83%	85%	89%
Pennsylvania	80%	84%	83%	72%	73%	72%
Rhode Island	62%	66%	68%	43%	46%	50%
South Carolina	77%	81%	83%	64%	70%	71%
South Dakota	70%	76%	78%	70%	74%	79%
Tennessee	84%	86%	89%	67%	69%	74%
Texas	61%	62%	62%	52%	50%	50%
Utah	60%	62%	63%	53%	56%	54%
Vermont	81%	86%	91%	78%	80%	86%
Virginia	66%	68%	70%	56%	57%	59%
Washington	84%	87%	91%	63%	69%	72%
West Virginia	88%	87%	86%	94%	89%	90%
Wisconsin	69%	73%	76%	70%	72%	75%
Wyoming	55%	55%	59%	52%	50%	56%
Mid-Atlantic Region	70%	72%	74%	60%	61%	63%
Midwest Region	81%	82%	82%	73%	75%	74%
Mountain Plains Region	74%	75%	75%	65%	65%	64%
Northeast Region	65%	69%	72%	53%	53%	59%
Southeast Region	67%	71%	75%	58%	59%	64%
Southwest Region	67%	67%	67%	58%	56%	56%
Western Region	60%	62%	63%	43%	44%	47%
United States	69%	71%	72%	57%	58%	60%

There is substantial uncertainty associated with most of these estimates. Confidence intervals that measure the uncertainty in the estimates for 2007 and 2008 are presented in Cunningham, Castner, and Sukasih (forthcoming). These confidence intervals are generally about as wide as the confidence intervals that are presented in this document for the 2009 estimates.

such as the percentage of the total State population receiving SNAP benefits. The shrinkage estimates presented here are substantially more precise than the direct sample estimates from the Current Population Survey.

The direct sample estimates of eligibles differ methodologically from estimates developed for prior reports. Motivations for the methodological improvements include making use of more recent data and methodologies.

Although our focus is on participation among people who were eligible for SNAP, there are significant challenges in identifying households that are categorically eligible due to the receipt of noncash public assistance benefits. Because of these challenges, people eligible solely through State categorical eligibility policies are not included in the estimates of eligible people. However, no data are available to identify categorically eligible participants who would have failed the program's asset tests. Therefore, such people are included in the estimates of participating people. Leftin et al. (2011) presents details on the methods used to estimate the numbers of eligible and participating people used in deriving the participation rates presented here.

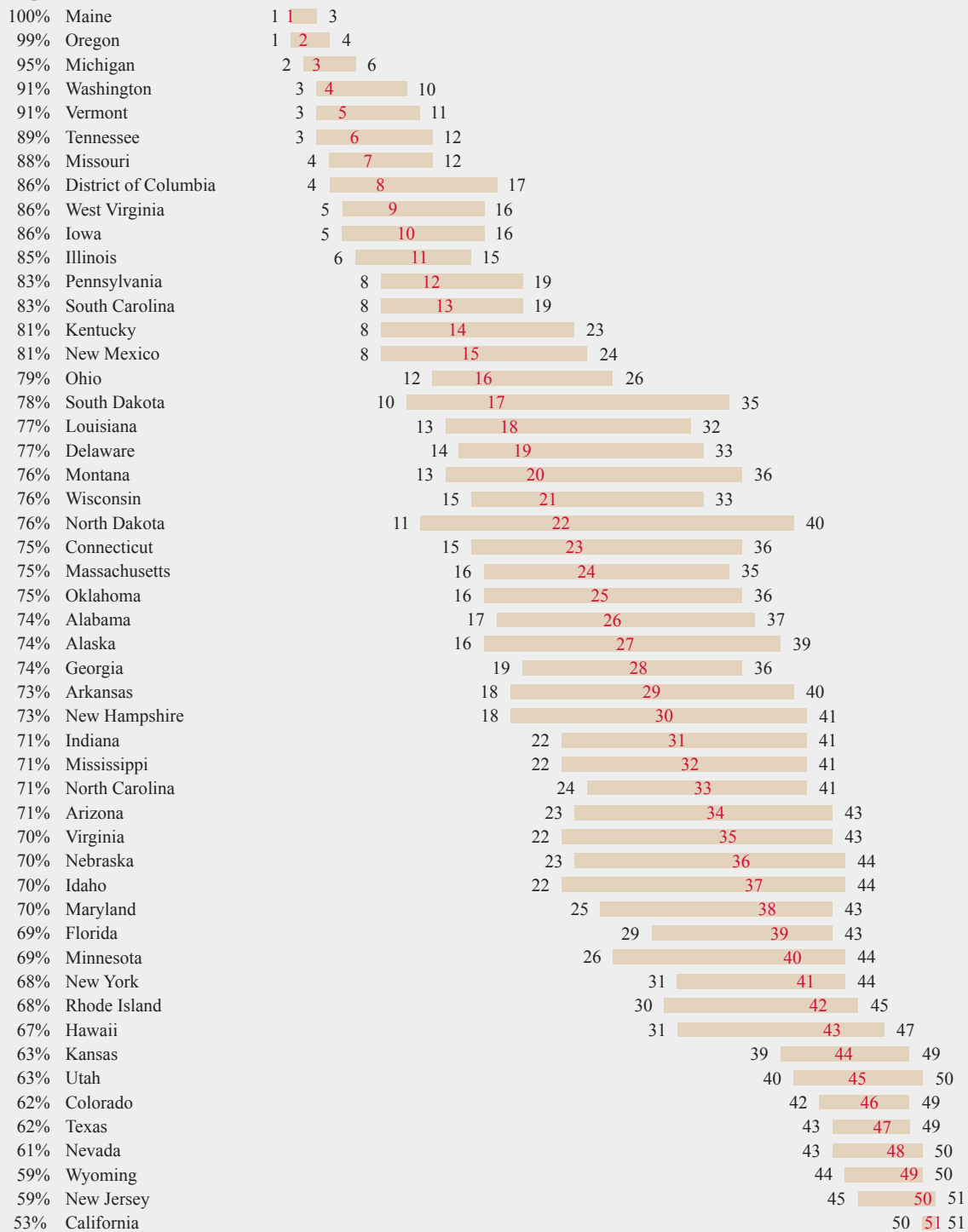
Because the Current Population Survey does not collect data on participation in the Food Distribution Program on Indian Reservations, the estimates presented here were not adjusted to reflect the fact that participants in that program were not eligible to receive SNAP benefits at the same time (Leftin et al. 2011). The Food Distribution Program on Indian Reservations served about 95,000 people in 2009, so the effects of such adjustments would be negligible in almost all States.

How Did Your State Rank in 2009?

Participation
Rate for
All Eligible
People

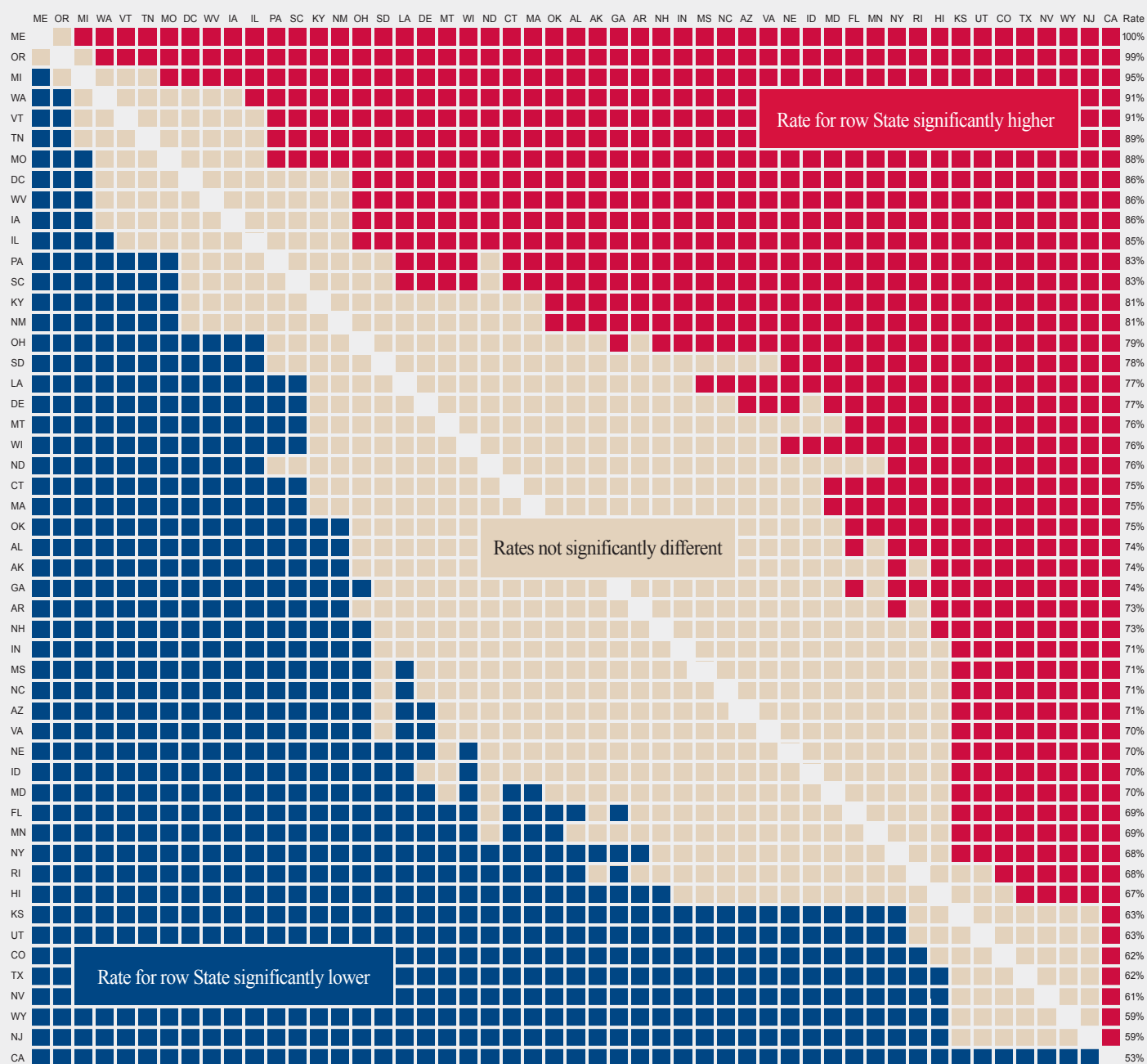
Ranks and Confidence Intervals

(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 Alabama had the 26th highest participation rate in 2009, the true rank may have been higher or lower. However, the chances are 90 in 100 that the true rank was between 17 and 37 among all of the States. To determine how Alabama or your State compares with any other State, see the chart on page 7.

How Did Your State Compare with Other States in 2009 for All Eligibles?



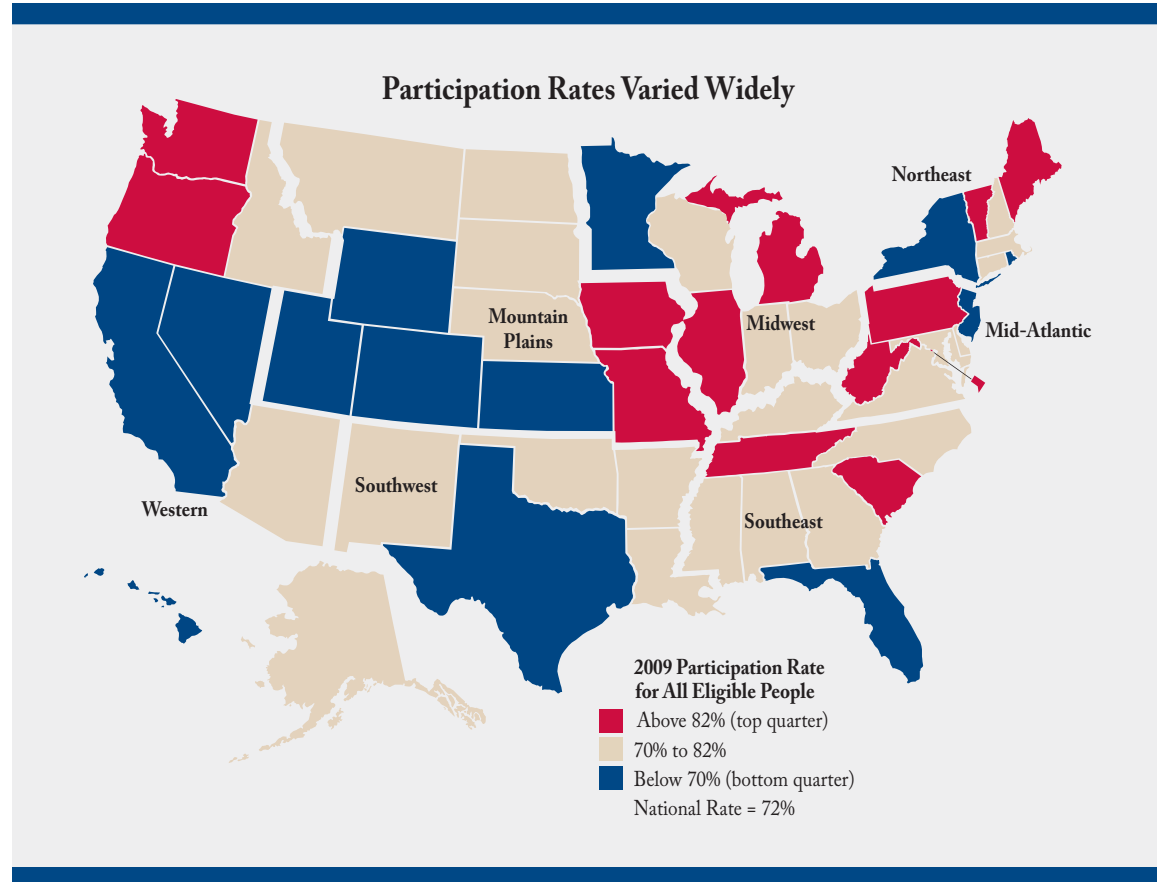
Whether one State has a significantly higher participation rate than a second State can be determined from this figure by finding the row for the first State at the left of the figure and the column for the second State at the top of the figure. If the box where the row and column intersect is red, there 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 Alabama, the State in the middle of the distribution, as an example, we see that it had a significantly lower participation rate than 15 other States (Maine, Oregon, Michigan, Washington, Vermont, Tennessee, Missouri, the District of Columbia, West Virginia, Iowa, Illinois, Pennsylvania, South Carolina, Kentucky, and New Mexico) and a significantly higher rate than 12 other States (California, New Jersey, Wyoming, Nevada, Texas, Colorado, Utah, Kansas, Hawaii, Rhode Island, New York, and Florida). Its rate was neither significantly higher nor significantly lower than the rates for the other 23 States, suggesting that Alabama is probably in the broad center of the distribution, unlike, for example, Maine and California, 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 5 percentage points.



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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.¹ It might be useful in some other contexts, however, to consider participation rates among those eligible for SNAP benefits or a cash substitute.

¹About 1.3 million Supplemental Security Income recipients in California receive a small food assistance benefit through the State supplement. In the absence of the state rule excluding these individuals from receiving SNAP benefits, about half of this number would be eligible for SNAP under current program rules.

References

Cunyngham, Karen, Laura Castner, and Amang Sukasih. "Empirical Bayes Shrinkage Estimates of State Supplemental Nutrition Assistance Program Rates in 2007-2009 for All Eligible People and the Working Poor." Washington, DC: Mathematica Policy Research, forthcoming.

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