Reaching Those in Need:

STATE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM PARTICIPATION RATES IN 2007

USDA

FOOD AND NUTRITION SERVICE

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 2009, the program served 33 million people in an average month at a total annual cost of over $50 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 2010 includes a performance target to reach 68 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. Twenty-eight million people received benefits in an average month in 2008. Eleven million—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.

Recent studies have examined national participation rates as well as participation rates for socioeconomic and demographic subgroups (Leftin and Wolkwitz 2009), and State rates for all eligible people and for the working poor (Cunnyngham, Castner, and Schirm 2008). This document presents estimates of SNAP participation rates for all eligible people and for the working poor by States for fiscal year 2007. These estimates can be used to assess recent program performance and focus efforts to improve performance.

Participation Rates in 2007

About 66 percent of eligible people in the United States received SNAP benefits in fiscal year 2007. Participation rates varied widely from State to State, however. Nineteen States had rates that were significantly higher (in a statistical sense) than the national rate, and 17 States had rates that were significantly lower. Among the regions, the Midwest Region had the highest participation rate. Its 77 percent rate was significantly higher than the rates for all of the other regions. The Western Region's participation rate of 56 percent was significantly lower than the rates for all of the other regions. (See the last page for a map showing regional boundaries.)

Supplemental Nutrition Assistance Program

Beginning October 1, 2008, the Food Stamp Act of 1977 is renamed the Food and Nutrition Act of 2008, and the Food Stamp Program is renamed the Supplemental Nutrition Assistance Program.

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How Many Were Eligible in 2007? What Percentage Participated?

Participation Rates and Confidence Intervals

(Participation Rate = 100 x Number of People Participating ÷ Number of People Eligible)

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

Eligible People (Thousands)				
812	Missouri	94%	100%	100%
161	Maine	86%	91%	96%
1,259	Michigan	84%	89%	95%
966	Tennessee	82%	87%	92%
465	Oregon	81%	87%	92%
306	West Virginia	79%	85%	91%
710	Kentucky	79%	83%	88%
1,482	Illinois	79%	83%	86%
107	District of Columbia	72%	78%	84%
482	Arkansas	72%	77%	81%
1,462	Pennsylvania	72%	76%	80%
692	Washington	71%	76%	80%
848	Louisiana	70%	74%	78%
312	Iowa	70%	74%	78%
723	South Carolina	70%	74%	78%
769	Indiana	70%	74%	77%
64	Vermont	69%	73%	76%
124	Hawaii	67%	71%	76%
79	Alaska	64%	70%	75%
1,500	Ohio	66%	69%	72%
295	Connecticut	65%	69%	73%
594	Oklahoma	65%	69%	72%
89	Delaware	63%	68%	73%
342	New Mexico	63%	67%	71%
405	Minnesota	62%	66%	70%
87	New Hampshire	63%	66%	69%
768	Virginia	62%	65%	69%
658	Massachusetts	61%	65%	70%
821	Alabama	61%	65%	69%
120	Montana	60%	64%	69%
556	Wisconsin	60%	64%	67%
93	South Dakota	59%	64%	68%
188	Nebraska	59%	64%	69%
1,384	North Carolina	60%	63%	66%
1,438	Georgia	60%	63%	67%
69	North Dakota	57%	62%	66%
2,885	New York	59%	61%	64%
878	Arizona	57%	61%	64%
700	Mississippi	57%	60%	63%
125	Rhode Island	57%	60%	63%
498	Maryland	55%	59%	64%
695	New Jersey	55%	59%	63%
2,114	Florida	53%	57%	61%
316	Kansas	54%	57%	60%
4,140	Texas	52%	55%	58%
446	Colorado	51%	55%	59%
233	Utah	48%	52%	56%
232	Nevada	47%	52%	56%
171	Idaho	45%	50%	54%
4,215	California	46%	48%	50%
46	Wyoming	42%	47%	53%
5,970	Midwest Region	75%	77%	79%
2,635	Mountain Plains Region	70%	72%	74%
3,925	Mid-Atlantic Region	67%	69%	72%
8,855	Southeast Region	65%	67%	69%
4,276	Northeast Region	61%	64%	66%
6,406	Southwest Region	59%	61%	64%
6,855	Western Region	54%	56%	58%
38,922	United States	65%	66%	67%

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 Alabama's participation rate was 65 percent in 2007, the true rate may have been higher or lower. However, the chances are 90 in 100 that the true rate was between 61 and 69 percent.

How Many Working Poor Were Eligible in 2007? What Percentage Participated?

Participation Rates and Confidence Intervals

(Participation Rate = 100 x Number of People Participating ÷ Number of People Eligible)

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

Eligible Working Poor (Thousands)		Participation Rate Lower Bound	Participation Rate	Participation Rate Upper Bound
421	Missouri	88%	100%	100%
108	West Virginia	79%	93%	100%
60	Maine	83%	92%	100%
588	Michigan	74%	84%	94%
265	Kentucky	73%	81%	88%
356	Tennessee	68%	76%	85%
238	Oregon	65%	75%	85%
539	Pennsylvania	66%	73%	80%
346	Indiana	66%	72%	79%
165	Iowa	66%	72%	79%
228	Arkansas	64%	71%	79%
647	Illinois	64%	71%	77%
410	Louisiana	60%	68%	76%
25	Vermont	60%	67%	74%
57	Montana	55%	63%	71%
184	New Mexico	55%	63%	70%
267	Oklahoma	56%	62%	69%
48	South Dakota	54%	62%	70%
311	South Carolina	56%	62%	69%
278	Wisconsin	56%	62%	68%
352	Alabama	54%	62%	69%
287	Washington	53%	61%	68%
666	Ohio	55%	60%	65%
34	North Dakota	52%	59%	67%
34	New Hampshire	51%	58%	65%
699	North Carolina	51%	57%	63%
356	Virginia	50%	57%	63%
43	Alaska	47%	57%	66%
43	Delaware	48%	56%	65%
100	Nebraska	49%	56%	64%
179	Minnesota	49%	56%	63%
70	Hawaii	46%	55%	63%
786	Georgia	48%	55%	61%
339	Mississippi	46%	54%	62%
116	Connecticut	46%	53%	61%
452	Arizona	47%	53%	59%
91	Idaho	43%	50%	57%
181	Massachusetts	42%	49%	56%
21	Wyoming	40%	49%	58%
125	Utah	43%	49%	55%
174	Kansas	44%	49%	53%
930	Florida	43%	48%	54%
1,354	New York	42%	48%	53%
286	New Jersey	41%	47%	54%
2,260	Texas	43%	47%	51%
46	Rhode Island	37%	44%	51%
241	Maryland	36%	44%	51%
238	Colorado	36%	43%	50%
32	District of Columbia	28%	39%	49%
125	Nevada	30%	38%	45%
2,469	California	29%	33%	37%
2,703	Midwest Region	65%	69%	73%
1,385	Mountain Plains Region	64%	68%	72%
1,606	Mid-Atlantic Region	57%	61%	65%
4,037	Southeast Region	55%	58%	62%
3,349	Southwest Region	50%	53%	57%
1,815	Northeast Region	45%	50%	55%
3,776	Western Region	38%	42%	45%
18,671	United States	54%	56%	58%

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 Nebraska's working poor participation rate was 56 percent in 2007, the true rate may have been higher or lower. However, the chances are 90 in 100 that the true rate was between 49 and 64 percent.

In 2007, 56 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-two States had rates for the working poor that were significantly higher than the national rate, and 14 States had rates that were significantly lower.

While 66 percent of all eligible people in the United States participated in 2007, only 56 percent of the eligible working poor participated, a significant difference of 10 percentage points. In 30 States, the participation rate for the working poor in 2007 was—like the national rate for the working poor—significantly lower than the rate for all eligible people; in 7 of these States, the rate for the working poor was more than 10 percentage points lower than the rate for all eligible people. 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 2007 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. Missouri was very likely at the top, with a higher rate for all eligible people than all other States. In contrast, Wyoming, California, and Idaho 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 2007. Missouri, West Virginia, and Maine were very likely ranked at the top, with higher rates for the working poor than most States. In contrast, California, Nevada, 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 fairly consistently been in the top or bottom of the distribution of rates in recent years. In all 3 years from 2005 to 2007, Arkansas, Illinois, Kentucky, Maine, Missouri, Oregon, Tennessee, and West Virginia had significantly higher participation rates for all eligible people than two-thirds of the States. An additional 8 States—the District of Columbia, Hawaii, Indiana, Louisiana, Michigan, Pennsylvania, South Carolina, and Washington—had significantly higher rates than half of the States. Idaho, Maryland, Mississippi, New Jersey, New York, Rhode Island, Texas, and Utah had significantly lower rates than half of the States in all 3 years, while California, Colorado, Kansas, Nevada, 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. Five States (Idaho, Indiana, 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, and Connecticut, the District of Columbia, Hawaii, Massachusetts, and Rhode Island are ranked significantly lower.

Estimation Method

The estimates presented here were derived using shrinkage estimation methods (Cunnyngham, Castner, and Schirm 2009, and Cunnyngham, 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

Participation Rates

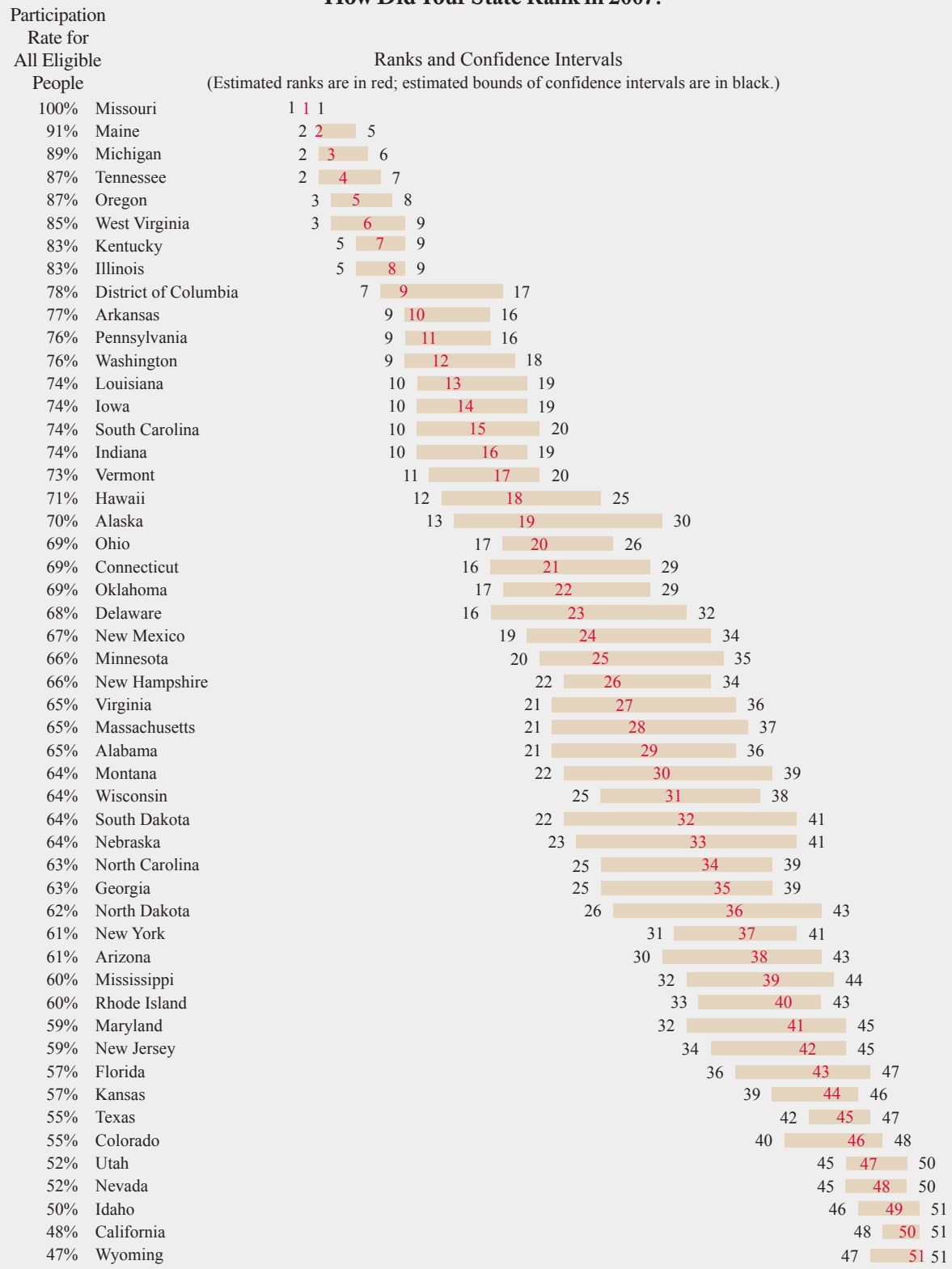
	All Eligible People			Working Poor		
	2005	2006	2007	2005	2006	2007
Alabama	67%	67%	65%	66%	60%	62%
Alaska	63%	71%	70%	59%	61%	57%
Arizona	67%	63%	61%	58%	55%	53%
Arkansas	79%	78%	77%	75%	71%	71%
California	48%	50%	48%	33%	35%	33%
Colorado	51%	53%	55%	35%	41%	43%
Connecticut	66%	71%	69%	50%	54%	53%
Delaware	62%	70%	68%	56%	62%	56%
District of Columbia	71%	80%	78%	42%	42%	39%
Florida	64%	60%	57%	52%	51%	48%
Georgia	69%	70%	63%	66%	62%	55%
Hawaii	73%	75%	71%	57%	56%	55%
Idaho	56%	54%	50%	53%	51%	50%
Illinois	76%	82%	83%	66%	72%	71%
Indiana	71%	76%	74%	71%	75%	72%
Iowa	65%	70%	74%	60%	66%	72%
Kansas	55%	57%	57%	47%	49%	49%
Kentucky	80%	80%	83%	76%	72%	81%
Louisiana	82%	78%	74%	84%	71%	68%
Maine	90%	94%	91%	88%	93%	92%
Maryland	56%	62%	59%	44%	45%	44%
Massachusetts	54%	62%	65%	35%	41%	49%
Michigan	72%	79%	89%	67%	77%	84%
Minnesota	62%	63%	66%	48%	51%	56%
Mississippi	52%	57%	60%	55%	50%	54%
Missouri	96%	100%	100%	96%	100%	100%
Montana	64%	63%	64%	59%	61%	63%
Nebraska	62%	65%	64%	55%	55%	56%
Nevada	54%	58%	52%	44%	47%	38%
New Hampshire	62%	64%	66%	49%	51%	58%
New Jersey	58%	60%	59%	45%	45%	47%
New Mexico	69%	71%	67%	69%	69%	63%
New York	60%	64%	61%	47%	47%	48%
North Carolina	59%	65%	63%	56%	57%	57%
North Dakota	57%	56%	62%	50%	49%	59%
Ohio	64%	69%	69%	57%	61%	60%
Oklahoma	68%	70%	69%	64%	63%	62%
Oregon	81%	81%	87%	67%	72%	75%
Pennsylvania	72%	75%	76%	66%	68%	73%
Rhode Island	57%	57%	60%	40%	34%	44%
South Carolina	73%	78%	74%	70%	67%	62%
South Dakota	59%	63%	64%	59%	61%	62%
Tennessee	89%	91%	87%	80%	78%	76%
Texas	59%	64%	55%	56%	56%	47%
Utah	58%	56%	52%	52%	51%	49%
Vermont	69%	72%	73%	58%	63%	67%
Virginia	64%	68%	65%	57%	57%	57%
Washington	69%	75%	76%	54%	62%	61%
West Virginia	83%	76%	85%	79%	72%	93%
Wisconsin	58%	61%	64%	54%	57%	62%
Wyoming	54%	54%	47%	57%	50%	49%
Northeast Region	61%	65%	64%	47%	48%	50%
Mid-Atlantic Region	67%	69%	69%	58%	58%	61%
Southeast Region	68%	69%	67%	63%	60%	58%
Midwest Region	69%	74%	77%	62%	68%	69%
Southwest Region	65%	68%	61%	62%	60%	53%
Mountain Plains Region	69%	72%	72%	63%	67%	68%
Western Region	56%	58%	56%	41%	44%	42%
United States	65%	67%	66%	56%	57%	56%

There is substantial uncertainty associated with most of these estimates. Confidence intervals that measure the uncertainty in the estimates for 2005 and 2006 are presented in Cunnyngham, Castner, and Schirm (forthcoming). These confidence intervals are generally about as wide as the confidence intervals that are presented in this document for the 2007 estimates.

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 benefits. Newly available three-year data (2005-2007) from the American Community Survey were also used as socioeconomic indicators, replacing the decennial census data that have been used for previous sets of estimates in this publication series.

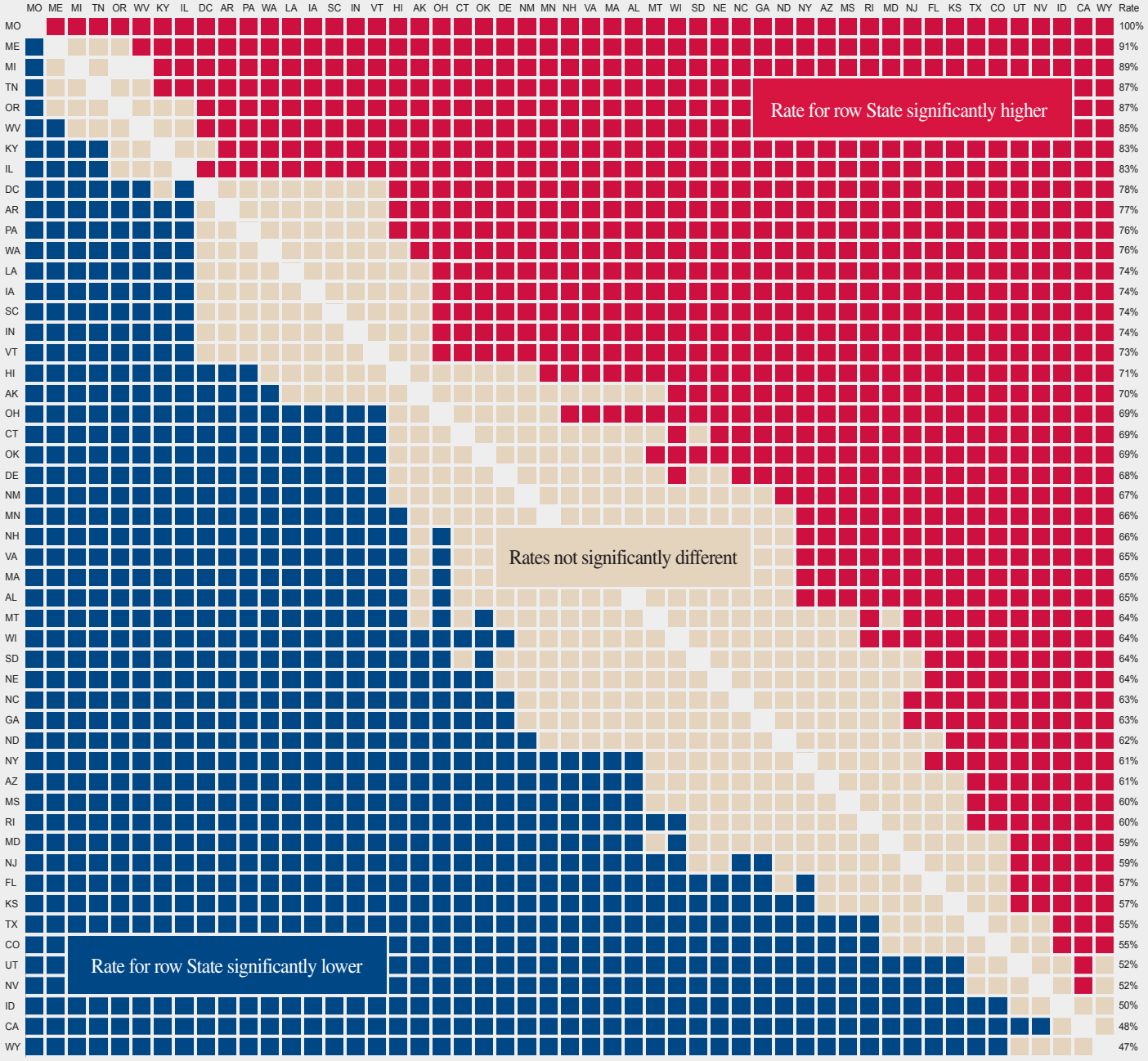
Shrinkage estimates are substantially more precise than direct sample estimates from the Current Population Survey or the Survey of Income and Program Participation, the leading sources of data used to estimate program eligibility. Because these surveys do not collect data on participation in the Food 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 and Wolkwitz 2009). The Food Distribution Program on Indian Reservations served about 87,000 people in 2007, 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. It might be useful in some other contexts, however, to consider participation rates among those eligible for SNAP benefits or a cash substitute.

How Did Your State Rank in 2007?



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 Hampshire had the 26th highest participation rate in 2007, the true rank may have been higher or lower. However, the chances are 90 in 100 that the true rank was between 22 and 34 among all of the States. To determine how New Hampshire or your State compares with any other State, see the chart on page 7.

How Did Your State Compare with Other States in 2007?



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 Hampshire, the State in the middle of the distribution, as an example, we see that it had a significantly lower participation rate than 19 other States (Missouri, Maine, Michigan, Tennessee, Oregon, West Virginia, Kentucky, Illinois, the District of Columbia, Arkansas, Pennsylvania, Washington, Louisiana, Iowa, South Carolina, Indiana, Vermont, Hawaii, and Ohio) and a significantly higher rate than 15 other States (Wyoming, California, Idaho, Nevada, Utah, Colorado, Texas, Kansas, Florida, New Jersey, Maryland, Rhode Island, Mississippi, Arizona, and New York). Its rate was neither significantly higher nor significantly lower than the rates for the other 16 States, suggesting that New Hampshire is probably in the broad center of the distribution, unlike, for example, Missouri 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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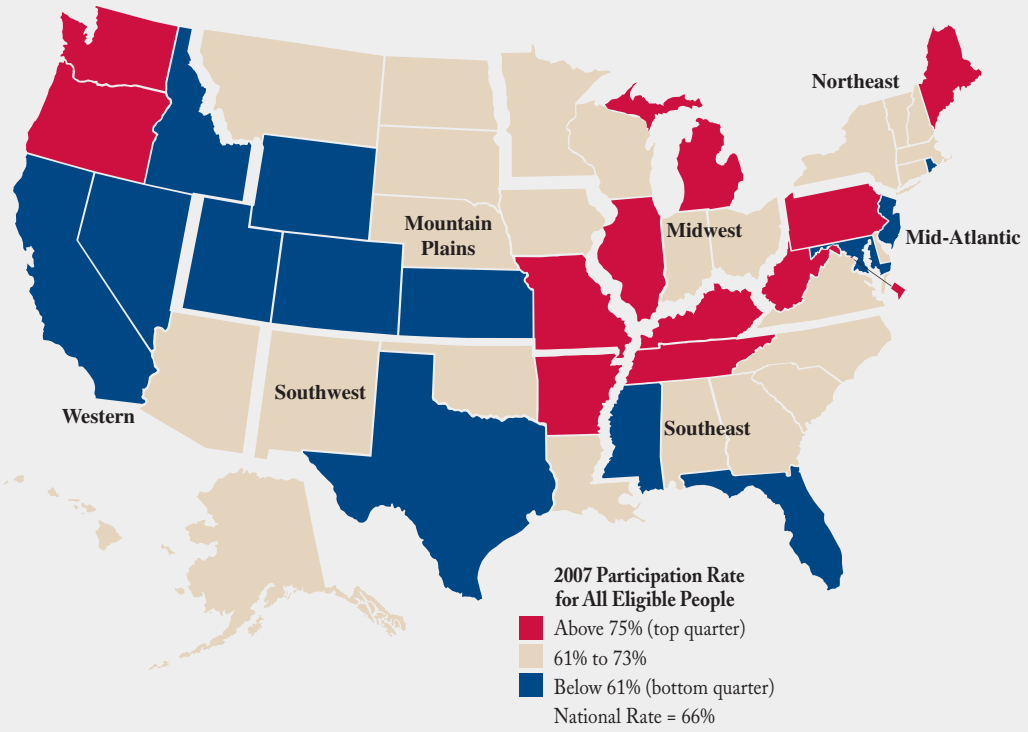
Participation Rates Varied Widely



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 and Wolkwitz (2009) presents details on the methods used to estimate the numbers of eligible and participating people used in deriving the participation rates presented here.

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