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State Food Stamp Participation Rates for the Working Poor in 2003

Final Report

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I.   INTRODUCTION

The Food Stamp Program (FSP) is a key source of nutrition assistance for many people who are working but earning little from their jobs. Recent legislation and regulatory reforms have bolstered the role of the FSP as a critical work support during transitions to self-sufficiency.

Of the 21 million people who received food stamps in an average month in 2003, over 8 million—39 percent—lived in households that had income from earnings, up from 30 percent of all food stamp recipients in 1996, the year in which more emphasis was placed on work for public assistance recipients.[1] Despite the fact that the "working poor"—that is, people who are eligible for food stamps but live in households in which a member earns income from a job—make up a larger portion of the program caseload, many such people still do not participate in the program. The rate of participation by the working poor in 2003 was 47 percent, remaining 8 percentage points lower than the rate for all eligible people (56 percent), a statistically significant difference.[2]

Reasons for low participation among the working poor include lack of knowledge of the program and expected low benefits (McConnell and Ponza 1999). While some working poor believe that they are not eligible for the program, those who expect to be eligible for only a small benefit believe the benefit is not worth the time associated with filling out applications and the out-of-pocket expense and wages lost due to traveling to the food stamp office to apply initially or periodically reapply. In recognition of these barriers to participation, the U.S. Department of

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[1] The percentage of participating households that have earnings, as opposed to the percentage of participating people who live in households that have earnings, increased from 23 to 28 between 1996 and 2003. The person-level measure is higher because households with earnings are larger than average.

[2] The difference in participation rates for these two groups appears to be 9 percentage points, due to rounding. The correct difference is 8 percentage points.

Agriculture's strategic plan for 2002 to 2007 includes strategies to "enhance support and access for working families" and to "target outreach efforts to special audiences such as the working poor."

In order to effectively meet the needs of their residents who are working but still poor, states now have the flexibility to change certain food stamp eligibility rules. For instance, to ensure that a working parent who needs a reliable vehicle to get to work is not ineligible for food stamps because of the value of that vehicle, states can revise the food stamp asset test rules related to calculating the value of a vehicle. Also, the Farm Security and Rural Investment Act of 2002 allowed states to extend the period of time that transitional food stamp benefits are available to those who are leaving Temporary Assistance to Needy Families (TANF).[3] Meanwhile, states have adopted simpler income reporting options that reduce barriers to participation for the working poor so that not all minor changes in income and employment need to be reported to the food stamp office.

In this report we build upon recent studies examining national participation rates for socioeconomic and demographic subgroups (Cunnyngham 2005) and rates for states among the entire eligible population (Castner and Schirm 2005). In Chapter II we focus on the derivation of participation rates for the working poor by state, discussing steps to overcome data limitations and small sample sizes, the estimation methods that we use, and the approach for measuring uncertainty in the estimates. In Chapter III we present the rates, discussing the variation across states and comparing a state's rate for all eligible people with its rate for the working poor. In particular, we examine whether some states have a rate for the working poor that is high relative to their rate for all eligible people and if some states have a rate for the working poor that is low

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[3] States have the option to automatically continue providing food stamp benefits to most families transitioning off the TANF program. A family's transitional food stamp benefit is set at the time the family leaves public assistance and is not impacted by increases in family income during the transition period.

relative to their rate for all eligible people. We also examine how rankings of states by rates for the working poor are different from rankings by rates for all eligible people.

This report presents our best estimates of participation rates in each state for the years 2002 and 2003 using the data and simulation methods that were available at the commencement of the study. For the reasons discussed in Chapter II, these estimates are less precise than estimates for all eligible people, and we continue to assess our methods for identifying the working poor and develop tools to compare participation rates for the working poor with rates for all eligible people. This report does not seek to explain the variation in the state estimates, except in those cases where we point out how a data limitation leads to a result that may be inaccurate for that state. Assessing sources of variation in the rates or measuring the impact of state programs and policies on a state's participation rate requires the examination of both household- and state-level influences on participation, a substantially more extensive analysis than can be undertaken in this study.

II. METHODOLOGY

A. SHRINKAGE ESTIMATION

In deriving state estimates of food stamp participation rates, even for all eligible people, we are limited by the small samples for most states in the leading national surveys used to determine eligibility. The "direct" estimates from these surveys are imprecise because of the substantial sampling error that results when using only the information in the small sample (e.g., using only 2003 data on households from Virginia to compute a 2003 estimate for Virginia). To improve precision, we use an "indirect" estimator, which "borrows strength" from other states, time periods, or data sources (e.g., assuming that what happened in other states in 2003 or what happened in Virginia and other states in earlier years is relevant to estimating what happened in Virginia in 2003). The indirect estimator we use for estimating state participation rates is a "shrinkage" estimator, or one that averages estimates obtained from different methods. This estimator combines direct sample and regression estimates and borrows strength across states and over time (2002 - 2003).[4] It also borrows strength from data outside the main sample survey (the Current Population Survey), specifically, data from administrative records systems and the decennial census.[5]

To improve precision even further, we borrow strength across groups—all eligible people and the working poor—by jointly deriving estimates of state participation rates for the working

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[4] Regression estimates are predictions based on nonsample or highly precise sample data, such as census and administrative records data, from all of the states and all of the years for which estimates are sought.

[5] Full details on the shrinkage estimation process are provided in Castner and Schirm (2005 and forthcoming).

poor with those of all eligibles.[6] Along with allowing us to borrow strength across the two groups (all eligible people and the working poor), jointly deriving the estimates also allows us to formally test the difference between the rates for the two groups. From this, we are able to determine whether a state's rate for the working poor is significantly different from its rate for all eligible people.

B. USE OF FOOD STAMP PROGRAM QUALITY CONTROL DATA AND IDENTIFICATION OF THE WORKING POOR

A food stamp participation rate is obtained by dividing an estimate of the number of people receiving food stamps by an estimate of the number of people eligible for food stamps, with the resulting ratio expressed as a percentage. We define as "working poor" any person who is eligible for food stamps and lives in a household in which a member earns money from a job. To derive direct sample estimates of participation rates, we use Current Population Survey (CPS) data to estimate the total percentage of the population that is eligible as well as the percentage that is eligible and working poor.[7] We use the Food Stamp Program Quality Control (FSPQC) data to estimate the percentage of recipients who are correctly receiving benefits and the percentage who are working poor and correctly receiving benefits.[8,9]

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[6] We have been deriving estimates of food stamp participation rates for all eligible people for several years. We examined the impact of the joint derivation on the estimates for all eligible people and found there was little effect on participation rates, the rankings of states by rates, or the precision of the estimates.

[7] We multiply the percentage eligible in a state and the percentage working poor and eligible in a state by the Census Bureau's state population estimate for July 1 of each year to obtain the number eligible and the number working poor and eligible.

[8] We exclude from our estimates of participants those people who were ineligible for food stamps and, thus, are not included in our estimates of eligibles. In addition, no data are available to estimate the number of people who would fail the program's income tests but are categorically eligible for food stamp benefits through participation in noncash public assistance programs. Therefore, because such people cannot be included in estimates of eligible people, they have been excluded from the estimates of participating people.

[9] We multiply the percentage correctly receiving benefits in a state and the percentage working poor and correctly receiving benefits in a state by the number of participants in the state according to food stamp Statistical Summary of Operations data to obtain the number of participants who are correctly receiving benefits and the

Use of the FSPQC data for estimating the number of working poor participants presents three issues:

1. The use of sample data introduces sampling error that contributes to the overall imprecision of the estimated rates.
2. The estimates of the percentage of participants who are correctly eligible and the percentage who are working poor and correctly eligible are correlated because both are derived from the FSPQC data.
3. The FSPQC data might not allow us to identify all households with earners.

To reduce the impact of using sample data in estimating numbers of participants, we changed from a 1-month focus for the estimates to a monthly average over the fiscal year, which increased the sample size. We then accounted for the correlation between the percentage of those participants who are correctly eligible and those who are working poor and correctly eligible in our calculations. Finally, to improve the identification of households with earnings in the FSPQC data, we developed an algorithm that we describe in more detail below that takes into account various potential indicators of earnings, not just the presence of earned income as recorded in the FSPQC data.

Although the FSPQC data are collected primarily to estimate payment error rates, they also have information about household characteristics. This secondary information, though, can be prone to error and may not contain all of the information relevant for the purposes of identifying the working poor. For example, the FSPQC data record only income that is counted toward the food stamp benefit. In households where earned income may have been excluded from the benefit calculation (for example, it was diverted to a third party), we would not be aware that the household had earnings.

To develop an algorithm to identify households that were very likely to have a member who worked, we reviewed data from many households to determine how we might use other information available (besides earned income), such as the earned income deduction and workforce participation information.[10] The algorithm based on our analysis identifies a household as working poor if the household had earnings after the file was edited (editing ensures consistency between the income and the benefit), or if prior to the editing process, two of the three earnings indicators (earned income, earned income deduction, workforce participation) suggest that a member of the household was working, or a household member had earned income and the total earned income and unearned income for this household summed to the recorded total income. (More details pertaining to our algorithm are provided in Appendix A.) In Table II.1 we show the percentage of participating households that are correctly eligible and working poor based on the indicators that suggest a member was working. The first column shows the percentage of participants in households identified as working poor because the final edited file showed the household had earned income. The second column shows the additional percentage that were counted as working poor because the unedited file showed the household had earned income (but no recorded earned income deduction) that was consistent with other information on the file, had an earned income deduction (but no recorded earned income) that was consistent with other information on the file, or had workforce participation information suggesting a household member worked. We find that across the states, the percentage of people living in households where a member worked ranged from 17 percent to 52 percent. The households we identified as working poor, but that do not have recorded earned income, generally accounted for less than 1 percentage point of the total.

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[10] Any household with earnings should have some portion of that earnings deducted from household income before the final benefit calculation. This earned income deduction is recorded in addition to the earned income.

C. MEASURING UNCERTAINTY IN THE ESTIMATED RATES

Estimates of participation rates are subject to uncertainty that is attributable to several sources of potential estimation error, including the possibly large errors that might arise when estimates must be derived from fairly small samples of households. We measure this uncertainty using confidence intervals, specifically, 90 percent confidence intervals. One interpretation of such a confidence interval is that there is a 90 percent chance that the true participation rate falls within the estimated bounds of the interval.

Confidence intervals around rates for the working poor are almost always wider than confidence intervals around the rates for all eligible people, reflecting greater uncertainty in the rates for the working poor. In Table II.2 we present the ratio of the width of the confidence interval for the rate for the working poor to the width of the confidence interval for the rate for all eligible people, by state for 2002-2003. On average, the confidence intervals for the working poor are about 55 percent wider than those for all eligible people.

TABLE II.1

PERCENTAGE OF FOOD STAMP PARTICIPANTS WITH EARNERS IN THE
HOUSEHOLD, BY INDICATORS OF EARNINGS, 2003

	Earned Income in Household	No Earned Income But Identified Based on Other Household Information	Total
Alabama	38.8	0.0	38.8
Alaska	42.7	0.1	42.8
Arizona	38.3	0.1	38.4
Arkansas	41.8	0.2	42.0
California	36.3	3.3	39.6
Colorado	36.3	0.0	36.3
Connecticut	27.9	1.0	28.9
Delaware	40.5	0.0	40.5
District of Columbia	16.1	0.9	17.0
Florida	37.7	0.1	37.8
Georgia	37.3	0.0	37.3
Hawaii	43.1	0.1	43.3
Idaho	51.0	1.0	52.0
Illinois	35.5	0.1	35.6
Indiana	39.8	0.1	39.9
Iowa	37.1	0.5	37.5
Kansas	41.9	0.0	42.0
Kentucky	36.4	0.0	36.4
Louisiana	46.6	0.0	46.6
Maine	29.1	0.3	29.5
Maryland	25.8	0.7	26.5
Massachusetts	18.6	0.6	19.2
Michigan	38.7	0.8	39.5
Minnesota	35.4	0.2	35.7
Mississippi	35.5	0.0	35.5
Missouri	37.1	0.8	37.9
Montana	43.2	0.3	43.6
Nebraska	39.2	0.2	39.4
Nevada	32.0	0.2	32.2
New Hampshire	30.0	1.4	31.4
New Jersey	27.6	0.7	28.3
New Mexico	46.1	0.2	46.3
New York	32.5	0.6	33.0
North Carolina	36.9	0.0	36.9
North Dakota	46.2	1.0	47.3
Ohio	36.3	0.0	36.3
Oklahoma	43.0	0.7	43.6
Oregon	39.9	0.0	39.9
Pennsylvania	34.4	0.1	34.5
Rhode Island	23.3	0.0	23.3
South Carolina	41.6	0.3	41.8
South Dakota	43.1	0.4	43.5
Tennessee	38.3	0.3	38.5
Texas	42.9	0.0	42.9
Utah	45.1	0.2	45.3
Vermont	31.2	0.0	31.2
Virginia	34.2	0.1	34.3
Washington	31.8	0.0	31.8
West Virginia	34.3	0.4	34.7
Wisconsin	42.3	0.1	42.4
Wyoming	50.5	0.0	50.5

TABLE II.2

RATIOS OF WIDTH OF CONFIDENCE INTERVAL FOR
PARTICIPATION RATE FOR WORKING POOR TO WIDTH OF
CONFIDENCE INTERVAL FOR PARTICIPATION RATE FOR
ALL ELIGIBLE PEOPLE

	2002	2003
Alabama	1.590	1.560
Alaska	1.392	1.682
Arizona	1.523	1.258
Arkansas	1.507	1.509
California	1.376	1.682
Colorado	1.399	1.360
Connecticut	1.329	1.432
Delaware	1.614	1.625
District of Columbia	1.442	1.456
Florida	1.707	1.817
Georgia	1.266	1.678
Hawaii	1.396	1.520
Idaho	1.635	1.604
Illinois	1.960	1.410
Indiana	1.390	1.433
Iowa	1.429	1.151
Kansas	1.395	1.362
Kentucky	1.322	1.282
Lousiana	1.697	1.643
Maine	1.373	1.651
Maryland	1.631	1.698
Massachusetts	1.523	1.482
Michigan	2.033	1.496
Minnesota	1.314	1.530
Mississippi	1.802	1.411
Missouri	1.256	1.422
Montana	1.799	1.847
Nebraska	1.389	1.621
Nevada	1.064	1.268
New Hampshire	1.551	1.864
New Jersey	1.525	1.994
New Mexico	1.646	1.385
New York	2.617	1.584
North Carolina	1.350	1.850
North Dakota	1.905	1.676
Ohio	1.232	1.394
Oklahoma	1.713	1.629
Oregon	1.624	1.791
Pennsylvania	1.573	1.700
Rhode Island	1.296	1.541
South Carolina	1.737	1.817
South Dakota	1.872	1.722
Tennessee	1.364	1.309
Texas	2.157	1.309
Utah	1.190	1.436
Vermont	1.749	1.579
Virginia	1.582	1.433
Washington	1.421	1.164
West Virginia	1.768	1.541
Wisconsin	1.473	1.454
Wyoming	1.520	1.503
United States	1.628	1.504

III. PARTICIPATION RATES FOR THE WORKING POOR

Using the estimation procedures described in Chapter II, we jointly derived estimates of food stamp participation rates for the working poor and for all eligible people for 2002-2003. The results are presented and discussed here.

A. PARTICIPATION RATES FOR THE WORKING POOR

In 2003, 47 percent of the eligible working poor in the United States participated in the FSP, but rates varied widely across states, with some over 60 percent and some under 40 percent. Eighteen states had rates that were significantly higher than the national rate, and 13 states had rates that were significantly lower. Table III.1 shows the participation rates by state for 2002-2003. Tables III.2 and III.3 present the participation rates by state for each year separately, along with 90 percent confidence intervals.

In Table III.4 we show the ranks by state for 2002-2003, and in Figure III.1 we map the participation rates based on that ranking. However, the ranking alone does not reflect the relative precision with which we generally evaluate the rates. Thus, in Tables III.5 and III.6 we present the ranks by state for each year separately, along with 90 percent confidence intervals.

Even given the substantial uncertainty associated with the participation rates for the working poor,[11] 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. Oregon and Tennessee were very likely ranked at the top, with higher rates than most states in 2003. In contrast, Nevada and Massachusetts likely had lower rates than most states. New Jersey, California, Rhode Island, Colorado, Texas, Utah, and Florida probably fell in the bottom half of the distribution, while

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[11] On average, confidence intervals for participation rates for the working poor are about 55 percent wider than those for all eligible people. (See Chapter II for more details.)

Missouri, West Virginia, Louisiana, Michigan, Maine, Oklahoma, Kentucky, South Carolina, Indiana, Alaska, Arkansas, and Ohio were probably in the top half in 2003.[12]

Changes in participation rates over time reflect true changes in participation patterns as well as statistical variability. As a result, a large change in a state's rate from a prior year should be interpreted cautiously; the change does not necessarily imply that the program's performance in the state has improved or deteriorated dramatically. Similarly, differences between states should be interpreted cautiously.

Despite the uncertainty, the estimated rates suggest that some states were in the top or bottom of the distribution in both 2002 and 2003. In those two years, Oregon, Tennessee, Missouri, West Virginia, Louisiana, Michigan, and Indiana had significantly higher participation rates for the working poor than two-thirds of the states, and Maine, Oklahoma, Kentucky, and Alaska had significantly higher rates than half of the states. Florida, Texas, Colorado, and Rhode Island had significantly lower rates for the working poor than half of the states in both years, and Utah, California, New Jersey, Massachusetts, and Nevada had significantly lower rates than two-thirds of the states.

B. COMPARING RATES FOR THE WORKING POOR AND ALL ELIGIBLE PEOPLE

While 56 percent of all eligible people in the United States participated in 2003, only 47 percent of the eligible working poor participated, a significant difference of 8 percentage points (Tables III.1 and III.7).[13] In 33 states the participation rate for the working poor in 2003 was—

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[12] Through a series of pairwise comparisons (comparing each state to every other state), we determined for each state the number of states that had rates that were significantly higher and the number that had rates that were significantly lower than that state's rate.

[13] The difference in participation rates for these two groups appears to be 9 percentage points, due to rounding. The correct difference is 8 percentage points.

like the national rate for the working poor—significantly lower than the rate for all eligible people. (Tables III.8-III.9 show the differences in rates and the corresponding confidence intervals for 2002-2003.) Ten of these states (California, Iowa, Georgia, New Jersey, Massachusetts, Nevada, Arizona, Rhode Island, Washington, and the District of Columbia) had a participation rate "deficit"—the participation rate for all eligible people minus the participation rate for the working poor—that was significantly larger than the national deficit of 8 percentage points.[14]

In contrast to the pattern observed for the nation, and the states listed above, 13 states (North Dakota, Pennsylvania, Wisconsin, Michigan, West Virginia, Louisiana, Wyoming, Oklahoma, Arkansas, Indiana, South Carolina, North Carolina, and Kansas) had participation rate deficits that were significantly smaller than the national deficit of 8 percentage points. However, in no state was the rate for the working poor significantly higher than the rate for all eligible people.

Having compared the difference in states' participation rates for the working poor and these participation rates for all eligible people, we can also compare how states are ranked according to the two sets of rates. In 2003, we find that four states (North Dakota, Pennsylvania, Wisconsin, and Wyoming) are ranked significantly higher when ranking by their participation rate for the working poor than when ranking by their participation rate for all eligible people, while six states (Georgia, Hawaii, Arizona, Rhode Island, Washington, and the District of Columbia) are ranked significantly lower (Tables III.6 and III.10).

The estimated participation rates presented in this report shed light on how the rates for the working poor vary across states and how participation rates differ between the working poor and

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[14] The participation rate deficit indicates how much lower the participation rate for the working poor is compared to the participation rate for all eligible people. A positive value indicates a lower participation rate for the working poor than for all eligible people, and a negative value indicates a higher participation rate for the working poor than for all eligible people.

all eligible people. The estimates also lead to questions, especially related to why the rates vary so much across states. Other types of analyses could help identify the impact of outreach to inform eligible people of their potential eligibility and the impact of state policies and practices on the participation decisions of eligible people. Studies focusing on participation in other assistance programs, such as the TANF program, could identify if success in keeping workers in these programs also leads to success in keeping workers in the FSP.

TABLE III.1

PARTICIPATION RATES FOR THE WORKING POOR, 2002-2003

	2002	2003
Alabama	50	50
Alaska	59 [+]	61 [+]
Arizona	45	46
Arkansas	52 [+]	59 [+]
California	33 [−]	34 [−]
Colorado	37 [−]	37 [−]
Connecticut	41	44
Delaware	42	46
District of Columbia	51	50
Florida	40 [−]	40 [−]
Georgia	48	51
Hawaii	61 [+]	54
Idaho	42	45
Illinois	52 [+]	52 [+]
Indiana	61 [+]	61 [+]
Iowa	45	45
Kansas	45	51
Kentucky	59 [+]	62 [+]
Louisiana	67 [+]	66 [+]
Maine	56 [+]	65 [+]
Maryland	36 [−]	40 [−]
Massachusetts	23 [−]	29 [−]
Michigan	64 [+]	65 [+]
Minnesota	42	48
Mississippi	52 [+]	51
Missouri	65 [+]	70 [+]
Montana	49	44
Nebraska	44	47
Nevada	24 [−]	28 [−]
New Hampshire	35 [−]	41 [−]
New Jersey	27 [−]	33 [−]
New Mexico	47	44
New York	41 [−]	42 [−]
North Carolina	40 [−]	45
North Dakota	52 [+]	53
Ohio	50 [+]	56 [+]
Oklahoma	55 [+]	64 [+]
Oregon	79 [+]	76 [+]
Pennsylvania	52 [+]	55 [+]
Rhode Island	37 [−]	35 [−]
South Carolina	54 [+]	62 [+]
South Dakota	51	47
Tennessee	64 [+]	74 [+]
Texas	38 [−]	38 [−]
Utah	33 [−]	38 [−]
Vermont	52 [+]	53 [+]
Virginia	42	43
Washington	41	41 [−]
West Virginia	70 [+]	68 [+]
Wisconsin	50	56 [+]
Wyoming	42	42
United States	45	47

[+] Participation rate is significantly higher than national rate.

[−] Participation rate is significantly lower than national rate.

TABLE III.2

PARTICIPATION RATES FOR THE WORKING POOR, WITH CONFIDENCE
INTERVALS, 2002

	Participation Rate	90 Percent Confidence Interval	
		Lower Bound	Upper Bound
Alabama	50	44	57
Alaska	59	52	65
Arizona	45	38	52
Arkansas	52	46	59
California	33	29	37
Colorado	37	32	41
Connecticut	41	35	47
Delaware	42	36	49
District of Columbia	51	41	61
Florida	40	36	44
Georgia	48	43	54
Hawaii	61	52	70
Idaho	42	37	48
Illinois	52	45	59
Indiana	61	54	67
Iowa	45	38	51
Kansas	45	40	51
Kentucky	59	53	65
Louisiana	67	58	76
Maine	56	51	62
Maryland	36	29	43
Massachusetts	23	18	28
Michigan	64	56	72
Minnesota	42	35	48
Mississippi	52	44	59
Missouri	65	59	72
Montana	49	41	57
Nebraska	44	38	51
Nevada	24	20	28
New Hampshire	35	29	42
New Jersey	27	22	32
New Mexico	47	39	54
New York	41	36	45
North Carolina	40	36	45
North Dakota	52	45	60
Ohio	50	46	54
Oklahoma	55	49	62
Oregon	79	70	89
Pennsylvania	52	45	59
Rhode Island	37	30	44
South Carolina	54	48	60
South Dakota	51	43	59
Tennessee	64	57	70
Texas	38	35	41
Utah	33	29	38
Vermont	52	45	59
Virginia	42	35	49
Washington	41	34	48
West Virginia	70	62	77
Wisconsin	50	44	57
Wyoming	42	35	49
United States	45	44	47

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TABLE III.3

PARTICIPATION RATES FOR THE WORKING POOR, WITH CONFIDENCE
INTERVALS, 2003

	Participation Rate	90 Percent Confidence Interval	
		Lower Bound	Upper Bound
Alabama	50	43	57
Alaska	61	54	68
Arizona	46	40	53
Arkansas	59	52	65
California	34	30	38
Colorado	37	32	42
Connecticut	44	38	51
Delaware	46	39	53
District of Columbia	50	39	61
Florida	40	35	44
Georgia	51	45	57
Hawaii	54	45	62
Idaho	45	37	52
Illinois	52	47	58
Indiana	61	54	68
Iowa	45	40	50
Kansas	51	46	56
Kentucky	62	56	68
Louisiana	66	57	74
Maine	65	58	72
Maryland	40	34	46
Massachusetts	29	24	34
Michigan	65	59	72
Minnesota	48	40	56
Mississippi	51	43	59
Missouri	70	62	77
Montana	44	38	51
Nebraska	47	40	54
Nevada	28	24	33
New Hampshire	41	34	49
New Jersey	33	27	39
New Mexico	44	37	51
New York	42	37	47
North Carolina	45	39	51
North Dakota	53	45	60
Ohio	56	50	62
Oklahoma	64	57	70
Oregon	76	66	86
Pennsylvania	55	47	62
Rhode Island	35	30	40
South Carolina	62	55	68
South Dakota	47	38	56
Tennessee	74	66	81
Texas	38	34	41
Utah	38	32	43
Vermont	53	46	60
Virginia	43	36	49
Washington	41	36	46
West Virginia	68	61	75
Wisconsin	56	49	62
Wyoming	42	35	50
United States	47	46	49

TABLE III.4

RANKS OF PARTICIPATION RATES FOR THE WORKING
POOR, 2002-2003

	2002	2003
Alabama	23	24
Alaska	10	12
Arizona	29	29
Arkansas	14	13
California	48	48
Colorado	44	46
Connecticut	37	35
Delaware	34	30
District of Columbia	20	25
Florida	41	43
Georgia	26	21
Hawaii	7	17
Idaho	32	33
Illinois	16	20
Indiana	8	11
Iowa	30	32
Kansas	28	23
Kentucky	9	9
Louisiana	3	5
Maine	11	7
Maryland	45	42
Massachusetts	51	50
Michigan	5	6
Minnesota	36	26
Mississippi	19	22
Missouri	4	3
Montana	25	34
Nebraska	31	27
Nevada	50	51
New Hampshire	46	40
New Jersey	49	49
New Mexico	27	36
New York	39	39
North Carolina	40	31
North Dakota	15	19
Ohio	24	14
Oklahoma	12	8
Oregon	1	1
Pennsylvania	18	16
Rhode Island	43	47
South Carolina	13	10
South Dakota	21	28
Tennessee	6	2
Texas	42	45
Utah	47	44
Vermont	17	18
Virginia	33	37
Washington	38	41
West Virginia	2	4
Wisconsin	22	15
Wyoming	35	38

TABLE III.5

RANKS OF STATES BY PARTICIPATION RATES FOR THE WORKING POOR,
WITH CONFIDENCE INTERVALS, 2002

		90 Percent Confidence Interval	
	Rank	Upper Bound	Lower Bound
Alabama	23	12	32
Alaska	10	5	18
Arizona	29	19	41
Arkansas	14	10	28
California	48	43	48
Colorado	44	36	47
Connecticut	37	26	45
Delaware	34	24	44
District of Columbia	20	8	36
Florida	41	30	45
Georgia	26	15	33
Hawaii	7	3	18
Idaho	32	26	43
Illinois	16	9	30
Indiana	8	4	15
Iowa	30	20	41
Kansas	28	20	39
Kentucky	9	5	17
Louisiana	3	2	10
Maine	11	7	21
Maryland	45	33	48
Massachusetts	51	49	51
Michigan	5	2	12
Minnesota	36	24	45
Mississippi	19	9	31
Missouri	4	2	9
Montana	25	12	36
Nebraska	31	19	42
Nevada	50	49	51
New Hampshire	46	35	48
New Jersey	49	48	51
New Mexico	27	15	40
New York	39	28	44
North Carolina	40	29	44
North Dakota	15	9	30
Ohio	24	15	29
Oklahoma	12	7	22
Oregon	1	1	2
Pennsylvania	18	9	30
Rhode Island	43	32	48
South Carolina	13	8	25
South Dakota	21	10	33
Tennessee	6	2	11
Texas	42	35	46
Utah	47	41	48
Vermont	17	10	30
Virginia	33	22	45
Washington	38	25	45
West Virginia	2	1	6
Wisconsin	22	12	32
Wyoming	35	24	45

TABLE III.6

RANKS OF STATES BY PARTICIPATION RATES FOR THE WORKING POOR,
WITH CONFIDENCE INTERVALS, 2003

| | Rank | 90 Percent Confidence Interval | |
		Upper Bound	Lower Bound
Alabama	24	15	35
Alaska	12	5	19
Arizona	29	20	40
Arkansas	13	7	20
California	48	44	50
Colorado	46	38	49
Connecticut	35	23	43
Delaware	30	20	41
District of Columbia	25	11	41
Florida	43	33	47
Georgia	21	14	33
Hawaii	17	10	31
Idaho	33	21	44
Illinois	20	14	30
Indiana	11	5	17
Iowa	32	23	41
Kansas	23	16	31
Kentucky	9	5	16
Louisiana	5	2	14
Maine	7	3	13
Maryland	42	30	47
Massachusetts	50	48	51
Michigan	6	3	12
Minnesota	26	16	40
Mississippi	22	13	36
Missouri	3	1	9
Montana	34	23	43
Nebraska	27	18	40
Nevada	51	49	51
New Hampshire	40	26	47
New Jersey	49	42	51
New Mexico	36	23	45
New York	39	28	45
North Carolina	31	22	42
North Dakota	19	11	32
Ohio	14	10	23
Oklahoma	8	4	15
Oregon	1	1	5
Pennsylvania	16	10	28
Rhode Island	47	40	50
South Carolina	10	5	17
South Dakota	28	16	42
Tennessee	2	1	5
Texas	45	38	47
Utah	44	35	49
Vermont	18	11	30
Virginia	37	25	45
Washington	41	29	46
West Virginia	4	2	10
Wisconsin	15	10	25
Wyoming	38	25	46

TABLE III.7

PARTICIPATION RATES FOR ALL ELIGIBLE PEOPLE,
2002-2003

	2002	2003
Alabama	55	56
Alaska	63	65
Arizona	57	64
Arkansas	58	62
California	48	45
Colorado	46	48
Connecticut	56	53
Delaware	50	53
District of Columbia	68	72
Florida	47	48
Georgia	59	65
Hawaii	76	67
Idaho	49	53
Illinois	60	61
Indiana	67	65
Iowa	54	57
Kansas	52	55
Kentucky	63	67
Louisiana	65	69
Maine	62	72
Maryland	46	48
Massachusetts	38	43
Michigan	62	65
Minnesota	56	59
Mississippi	56	60
Missouri	70	76
Montana	50	50
Nebraska	57	56
Nevada	41	44
New Hampshire	44	46
New Jersey	45	47
New Mexico	54	52
New York	51	48
North Carolina	46	49
North Dakota	50	51
Ohio	57	61
Oklahoma	58	67
Oregon	80	83
Pennsylvania	53	54
Rhode Island	52	53
South Carolina	58	65
South Dakota	54	52
Tennessee	70	82
Texas	47	48
Utah	43	48
Vermont	59	60
Virginia	51	54
Washington	57	60
West Virginia	67	68
Wisconsin	52	55
Wyoming	46	46
United States	54	56

TABLE III.8

DIFFERENCES BETWEEN PARTICIPATION RATES FOR THE WORKING POOR AND
ALL ELIGIBLE PEOPLE, WITH CONFIDENCE INTERVALS, 2002
(Rate for Working Poor - Rate for All Eligible People)

| | Difference | 90 Percent Confidence Interval | |
		Lower Bound	Upper Bound
Alabama	-5	-10	0
Alaska	-5	-10	1
Arizona	-12	-17	-7
Arkansas	-6	-11	-1
California	-15	-18	-11
Colorado	-9	-13	-5
Connecticut	-15	-20	-10
Delaware	-7	-13	-2
District of Columbia	-16	-25	-8
Florida	-7	-11	-4
Georgia	-11	-16	-6
Hawaii	-15	-23	-8
Idaho	-7	-11	-2
Illinois	-8	-13	-2
Indiana	-6	-11	0
Iowa	-10	-15	-5
Kansas	-6	-11	-2
Kentucky	-5	-10	1
Louisiana	1	-6	9
Maine	-6	-11	-1
Maryland	-10	-16	-4
Massachusetts	-15	-19	-11
Michigan	2	-5	8
Minnesota	-15	-21	-9
Mississippi	-4	-10	2
Missouri	-5	-10	1
Montana	-2	-8	5
Nebraska	-12	-18	-7
Nevada	-18	-21	-14
New Hampshire	-9	-14	-3
New Jersey	-18	-21	-14
New Mexico	-7	-13	-1
New York	-10	-14	-6
North Carolina	-6	-10	-2
North Dakota	2	-4	8
Ohio	-7	-11	-3
Oklahoma	-3	-8	2
Oregon	0	-8	7
Pennsylvania	-1	-7	5
Rhode Island	-15	-21	-9
South Carolina	-4	-9	1
South Dakota	-3	-9	3
Tennessee	-6	-12	0
Texas	-9	-12	-6
Utah	-10	-14	-6
Vermont	-8	-14	-2
Virginia	-9	-15	-3
Washington	-16	-21	-11
West Virginia	2	-4	8
Wisconsin	-2	-7	4
Wyoming	-5	-10	1
United States	-8	-10	-7

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TABLE III.9

DIFFERENCES BETWEEN PARTICIPATION RATES FOR THE WORKING POOR AND
ALL ELIGIBLE PEOPLE, WITH CONFIDENCE INTERVALS, 2003
(Rate for Working Poor - Rate for All Eligible People)

| | | 90 Percent Confidence Interval | |
	Difference	Lower Bound	Upper Bound
Alabama	-6	-11	0
Alaska	-4	-11	2
Arizona	-17	-23	-12
Arkansas	-3	-9	2
California	-11	-14	-8
Colorado	-11	-15	-7
Connecticut	-9	-14	-3
Delaware	-7	-13	-2
District of Columbia	-22	-31	-13
Florida	-8	-12	-4
Georgia	-14	-19	-8
Hawaii	-14	-20	-7
Idaho	-9	-15	-3
Illinois	-9	-13	-4
Indiana	-3	-9	2
Iowa	-12	-17	-7
Kansas	-4	-9	0
Kentucky	-5	-11	0
Louisiana	-3	-10	4
Maine	-7	-13	-1
Maryland	-7	-12	-3
Massachusetts	-14	-18	-10
Michigan	0	-5	5
Minnesota	-11	-18	-4
Mississippi	-9	-16	-3
Missouri	-6	-12	0
Montana	-5	-10	0
Nebraska	-9	-15	-3
Nevada	-16	-20	-12
New Hampshire	-5	-11	1
New Jersey	-14	-19	-9
New Mexico	-8	-14	-2
New York	-6	-10	-1
North Carolina	-4	-9	1
North Dakota	1	-5	7
Ohio	-5	-10	0
Oklahoma	-3	-9	2
Oregon	-7	-14	1
Pennsylvania	1	-5	7
Rhode Island	-17	-22	-13
South Carolina	-4	-9	2
South Dakota	-5	-12	2
Tennessee	-8	-15	-2
Texas	-10	-13	-7
Utah	-10	-14	-5
Vermont	-7	-13	-1
Virginia	-11	-17	-6
Washington	-19	-23	-14
West Virginia	0	-6	6
Wisconsin	1	-4	6
Wyoming	-3	-9	3
United States	-8	-9	-7

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TABLE III.10

RANKS OF PARTICIPATION RATES FOR ALL ELIGIBLE
PEOPLE, 2002-2003

	2002	2003
Alabama	26	26
Alaska	10	13
Arizona	21	16
Arkansas	16	17
California	40	49
Colorado	46	44
Connecticut	23	33
Delaware	38	31
District of Columbia	5	4
Florida	41	42
Georgia	15	14
Hawaii	2	8
Idaho	39	32
Illinois	13	19
Indiana	7	15
Iowa	27	24
Kansas	33	27
Kentucky	9	9
Louisiana	8	6
Maine	12	5
Maryland	45	40
Massachusetts	51	51
Michigan	11	12
Minnesota	24	23
Mississippi	25	20
Missouri	3	3
Montana	36	38
Nebraska	20	25
Nevada	50	50
New Hampshire	48	47
New Jersey	47	46
New Mexico	28	36
New York	35	43
North Carolina	44	39
North Dakota	37	37
Ohio	22	18
Oklahoma	17	10
Oregon	1	1
Pennsylvania	30	30
Rhode Island	31	34
South Carolina	18	11
South Dakota	29	35
Tennessee	4	2
Texas	42	41
Utah	49	45
Vermont	14	21
Virginia	34	29
Washington	19	22
West Virginia	6	7
Wisconsin	32	28
Wyoming	43	48

FIGURE III.1

2003 PARTICIPATION RATES FOR THE WORKING POOR

■ Above 52% (top quarter)
▨ 42% to 52%
□ Below 42% (bottom quarter)
National Rate = 47%
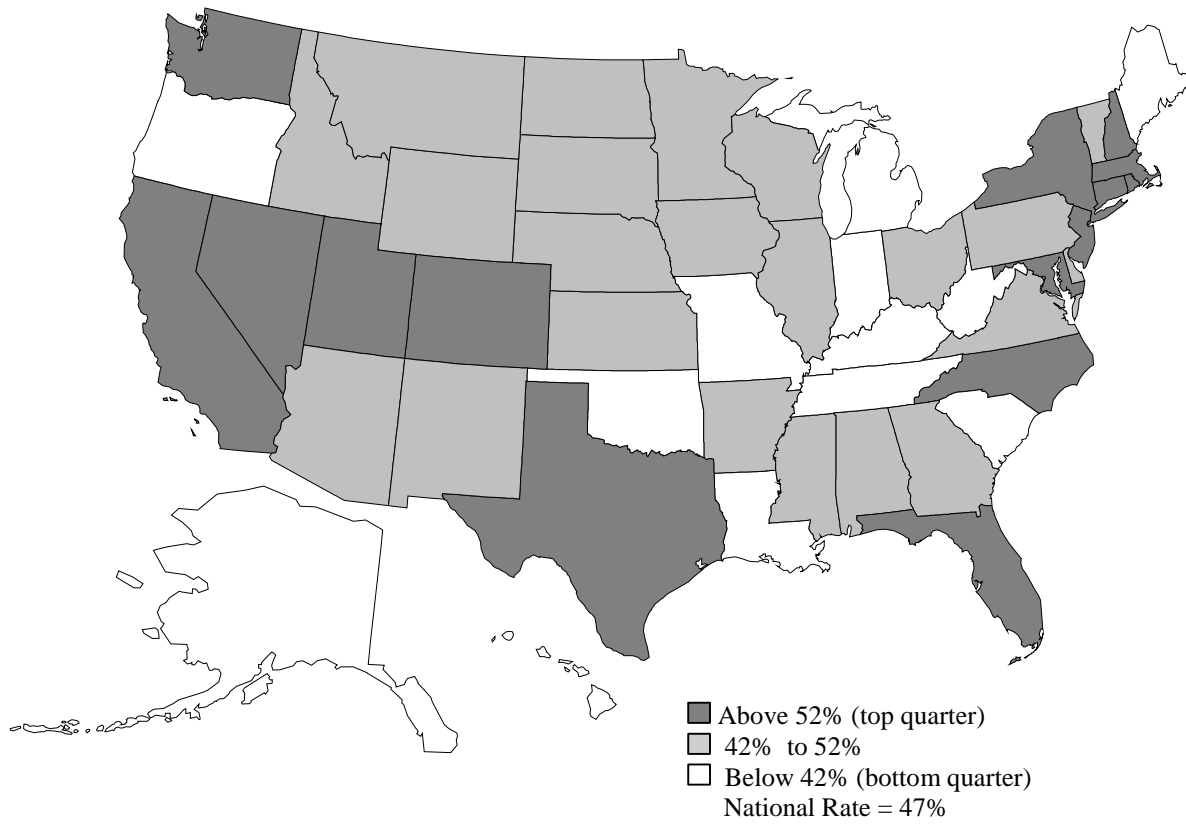
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APPENDIX A

IDENTIFYING HOUSEHOLDS WITH EARNINGS IN THE FSPQC DATA

For each household, the FSPQC data provide information that is necessary to calculate the food stamp benefit for the household, including types and amounts of income and types and amounts of deductions from income.

We identified working poor households as those with either earnings in the edited data or two indicators of earnings in the unedited data,[15] using the following algorithm:

1. Identify at least one person with recorded earned income, AND

   a. A recorded earned income deduction, or

   b. Recorded earned and unearned income that sum to the recorded total income, or

   c. Recorded earned income with the earned income deduction already subtracted and unearned income that sum to the recorded total income (some states subtract the earned income deduction from income deemed by an ineligible member before recording it on the file), or

   d. At least one person with a recorded workforce participation variable indicating he or she is employed

2. OR, identify the household as having a recorded earned income deduction, AND

   a. At least one person with recorded earned income, or

   b. Earnings implied by the recorded earned income deduction and recorded unearned income that sum to the recorded total income, or

   c. Recorded gross income that is more than the earned income implied by the earned income deduction and both unearned and earned income equal zero (to account for household records that have no recorded individual income amounts but do have what appear to be consistent household-level indicators), or

_____

[15] Under contract with FNS, Mathematica Policy Research cleans and edits the FSPQC data to ensure that the income amounts provided on the file are consistent with the benefit. Any earnings that were not included in the benefit calculation but were recorded on the file may make the household appear to be ineligible. In the process of editing the file, households whose income cannot be reconciled with the income tests are dropped. Less than one half of one percent of the households on the file were dropped, but these households were slightly more likely to have earnings and they were not equally distributed across States. To avoid bias resulting from dropping these households, we identified working poor households using both the edited data and the unedited data, but use of the unedited data makes it important to check for multiple indicators to compensate for recording errors.

d. At least one person with a recorded workforce participation variable indicating that he or she is employed.