Trends in Food Stamp Program Participation Rates: 1999 to 2002

September 2004

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ACKNOWLEDGMENTS

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INTRODUCTION

The Food Stamp Program (FSP) helps low-income individuals purchase food so that they can obtain a nutritious diet. The number of eligible individuals served in an average month by the FSP increased from 16.9 million in 2001 to 18.7 million participants in 2002, an increase of over 10 percent.[1] Most individuals are eligible for the program if their financial resources fall below certain income and asset thresholds. Not all of those who are eligible participate in the program, however. Some choose not to participate, while others are unaware that they are eligible. The food stamp participation rate—the percentage of eligible people who actually participate in the FSP—is an important measure of how well the program is reaching its target population.

This report presents estimated participation rates for 2002 and revised estimates of rates for 1999, 2000, and 2001. The estimates presented in this report differ from those presented in *Trends in Food Stamp Participation Rates: 1999 to 2001* (Cunnyngham 2003). This is due principally to two factors, one reflecting changes in the program itself, particularly changes that relaxed limits on the value of vehicles that participants could own, thus expanding the number of people eligible for benefits, and one resulting from improvements in the estimation methodology used. The revisions in estimates resulting from these changes are substantial. For instance, Cunnyngham (2003) presented estimates of FSP participation rates among individuals in 2001 that were between 59.7 and 61.6, depending on the accounting period used. The corresponding fiscal year 2002 estimate in this report is 53.8 percent.

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[1] Participation continued to rise during 2003.

All estimates reported below reflect these revisions, except where specifically noted. The changes in program rules and estimation methods and their effects on estimated participation rates are discussed in detail in a later section and in Appendix C.

SUMMARY OF ESTIMATED RATES

Using the improved data and methods for all years and taking into account expanded eligibility rules for 2001, we estimate that the food stamp participation rates in 1999, 2000, and 2001 were 56, 56, and 53 percent, respectively. For fiscal year 2002, we estimate that the FSP served about 54 percent of all eligible individuals.

The participation rates reported here rely on estimates of individuals eligible for food stamps and individuals participating in the FSP. The estimates of eligible individuals are derived from a model that uses March Current Population Survey (CPS) data to simulate the FSP. The estimates of participants are based on FSP Program Operations data and FSP Quality Control (FSPQC) data. The resulting participation rates estimate the percentage of individuals who are eligible for the FSP that choose to participate in the program.

Along with presenting the participation rate, this report also examines trends in participation rates among subgroups of the eligible population, such as children, elderly individuals, and individuals in households with earned income, and describes historic participation rates.

FACTORS ASSOCIATED WITH LOWER ESTIMATED PARTICIPATION RATES

As noted earlier, the participation rates for 1999 – 2001 presented in this report are substantially lower than the rates presented in Cunnyngham (2003). This is due to the implementation of previously-planned improvements in the estimation methodology as well as significant changes in the FSP that we are now able to simulate with the revised methodology. In the material below, we identify the key factors that have changed and discuss their approximate impact on the estimates of eligible individuals. We also explore what the change in

participation rate among individuals who were eligible for food stamps under the old eligibility rules might have been in the absence of programmatic changes.

Several changes in the FSP and its environment have led to increases in the estimates of eligible individuals, thus lowering participation rates.

First, the increased number of individuals eligible for FSP benefits reflects substantial changes in the way vehicle assets were treated in the FSP beginning in 2001. Because of a concern that the previous vehicle rules had created difficulties for the working poor, as well as a concern that earlier vehicle asset limits had become outdated, both regulatory and legislative changes were made to allow states greater discretion in their treatment of vehicles when counting a household's assets for determining program eligibility.[2] By the end of 2002, all but 11 states had taken advantage of this new flexibility. This change had important impacts on overall FSP eligibility. We estimate that in 2002 about 2.7 million individuals, or about 8.8 percent of all eligible individuals, were made eligible by these vehicle rule expansions.

Second, 2000-2002 was a period of changing economic conditions in the United States. The FSP is designed to expand as the economy weakens and to contract as the economy grows. Over this period, the national unemployment rate increased from 4.0 percent in 2000 to 4.8 percent in 2002 and the poverty rate increased from 11.3 percent to 12.1 percent. These changes in the economy would be expected to result in more people becoming eligible for the FSP. Estimates documented below suggest that the increase in eligible individuals due to economic factors may have been about 1.4 million people in 2002, or about 4 percent of all eligible individuals.

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[2] Beginning in January 2001, vehicles with very low equity were not counted as assets, and beginning in July 2001, states were permitted to align their FSP vehicle policies with policies for other state programs such as Temporary Assistance to Needy Families (TANF). Details on these policy reforms are described in Appendix C.

The participation rate estimates presented in this report also have been affected by previously-planned updates to the estimation methodology that improve the accuracy of these estimates. The most important of these updates involves the methodology used to impute household assets. Under program regulations, both financial assets and vehicle assets are used to determine whether a household is eligible for the FSP, but neither is directly observable in the CPS data set.[3] Therefore, asset eligibility is imputed into the CPS data using equations estimated from the MATH SIPP, a microsimulation based on the Survey of Income and Program Participation (SIPP). For Cunnyngham (2003), the asset imputations were developed using the 1994 MATH SIPP model, a methodology consistent with that used in previous reports on trends in participation rates. For this report, the equations were updated using the 1999 MATH SIPP model, the latest model currently available. The 1999 MATH SIPP model is based on November 1999 data from the 1996 SIPP panel and, in addition to a number of other changes, incorporates improvements that more accurately reflect the use of wholesale rather than retail vehicle values when applying the FSP vehicle rules. The equations for imputing assets also were respecified to accommodate the substantial state-level variation in vehicle asset treatment. In particular, 15 separate estimation equations are now used, corresponding to 15 different groups of states with varying treatment of these assets. We estimate that the technical improvements related to the determination of asset eligibility increase the estimated number of eligible individuals by about 1.9 million in 2002.

At the same time that the treatment of assets was revised and updated, a smaller set of changes was made to update other features of the methodology used to estimate FSP eligibility.

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[3] This lack of direct assets information has always been recognized as a significant limitation in use of the CPS for estimating eligibles. Nevertheless, the CPS remains the data set of choice for this work, because no other large, national data set provides the necessary detailed income data on a timely basis for making annual estimates.

These changes include updated methodologies to identify refugees, improved methodologies to identify working poor individuals, and other minor modeling changes.[4] We estimate that these technical improvements added about 0.4 million eligible individuals in 2002.

EFFECTS ON ESTIMATED NUMBERS OF INDIVIDUALS ELIGIBLE FOR THE FSP

In order to estimate the likely relative effects of the various factors discussed above on participation rates, we have decomposed the changes in the estimates of eligible individuals as shown in Table 1. This table should be viewed as only an approximate decomposition of the effects, since a given household may be affected by more than one factor in the decomposition but will only be captured by the first factor that applies. However, we believe that the table illustrates the rough order of magnitude associated with each factor.

Use of the table can be best explained by reading down one of the vertical columns. Consider, for instance the column showing 2001 data. The first and second panels can be viewed as "baseline" estimates in that they reproduce numbers that were reported in Cunnyngham (2003). The inclusion of two panels of baseline data reflects the fact that two different participation rates were reported in that study. The first panel, consistent with those in prior years, is based on estimates of participants and eligible individuals in the month of September. The second panel reflects average estimates over the whole year. We transitioned from deriving September participation rates to fiscal year participation rates because the fiscal year rates have smaller sampling errors and use a consistent measure for participants and eligibles. As reported in Cunnyngham (2003), the eligibility estimates for individuals based on these two different reporting periods were essentially the same, although the participation rates varied substantially, reflecting differences in participation during the two different periods.

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[4] See Appendix C for a description of the methodology used, including changes from previous reports in this series on trends in participation rates.

The third panel in the table shows the impact on the number of eligible individuals stemming from changes in estimation methods *other than the changes related to assets*. As shown, these methodological changes resulted in a relatively small increase of about 400,000 in the estimated number of eligible individuals.

The fourth panel of the table illustrates the effects of implementing the new methodology associated with assessing asset-eligibility for the FSP but not actually simulating the new vehicle rules. These changes resulting from using the more recent SIPP data and revised equations for imputing asset eligibility are substantial. The estimated number of eligible individuals increases by approximately 2 million.

Finally, the fifth panel introduces estimates of the effects of the increased eligibility for the program due to the reformed treatment of vehicles in determining food stamp eligibility. This, too, has a substantial impact. In 2001, when the changeover to new rules was in progress, we estimate that more than 1.1 million people became eligible under the expanded treatment of vehicles. By 2002, when the vehicle reforms were in effect for the entire year for most states, the estimated number of individuals made eligible under these provisions was 2.7 million.

Several of the findings summarized in the table bear mentioning. The first concerns an analysis of the overall reasons for the decrease in the reported participation rates between Cunnyngham (2003) and this report. The focus of attention is the difference between the 61.6 and 59.7 figures, which appear in the first and second panels of the 2001 column, and the 53.8 figure, which appears in the bottom panel of the 2002 and is our "bottom line" estimate for 2002.

The net change in the participation rate is the effect of partially offsetting changes in participation and in eligibility. We have discussed a number of factors that increased the estimated numbers of individuals eligible for food stamps over the relevant period, and these increases in the numbers of eligible individuals had the effect of decreasing participation rates.

On the other hand, there also were substantial increases in participation, and this partially offset what would otherwise have been a larger decline in the estimated rates.

Unfortunately, it is not possible to fully decompose the effects of the various changes on the participation *rates*, because we cannot disaggregate the participation changes into separate components the way we can with changes in the estimates of eligible individuals. In particular, we lack information on vehicle assets and on categorical eligibility based on receipt of non-cash TANF benefits for the individuals who are included in the participation estimates, and thus cannot determine which participants became newly eligible under relaxed vehicle rules.

Nevertheless, a number of judgments can be made about the various effects. The effects of switching from a September accounting period to a fiscal year accounting period (Panels 1 and 2 of Table 1) were discussed in Cunnyngham (2003). This change alters the estimate of eligible individuals very little. Therefore the effect on participation rates depends on whether participation has been rising or falling during a given year, and this varies from year to year.

In addition, the *non-asset-related* methodological changes reflected in the third panel of the table were too small to have very substantial effects on the rates. On the other hand, the effects of the newly estimated asset equations based on more current data were substantial on both numbers of eligible individuals and on the participation rates.

Another important change affecting the numbers of eligible individuals was the relaxation of eligibility rules pertaining to vehicle assets. The number of individuals who were eligible in 2002 due to the expansion of asset eligibility can be derived by comparing the fourth and fifth panels of the 2002 column. The estimate is an increase of approximately 2.7 million, a very substantial increase in the population eligible to be served by the program. While the available data do not allow us to analyze precisely the effects of this change, the available evidence suggests that this programmatic change also had a substantial effect in lowering the participation rate. While some of the newly-eligible individuals undoubtedly began to participate in 2001 and

2002, it is unlikely that the vehicle rules change led to an increase in participation proportional to its increase in eligibility in the period under discussion. Our reasons for believing this are discussed in the next section.

Besides using Table 1 to examine the relative effects of the changes we have discussed, a number of other features of the table are of interest. First, the table provides an estimate of the likely impacts on eligibility of changes in economic conditions. In particular, comparing the estimates of eligible individuals for 2001 and 2002 in the fourth panel of the table shows the estimated changes in eligible individuals with the same methodology for both years and with the effects of the vehicle changes not included. The estimated change in eligible individuals is from 30.6 to 32.0 million, an increase of 1.4 million. It is likely that most of this change is due to economic factors. Additionally, the bottom panel of Table 1 provides an estimate of how the overall participation rate changed between 2001 and 2002, using comparable methodology. The estimated change is an increase of 0.6 percent, from 53.2 to 53.8.

LIKELY CHANGE IN PARTICIPATION RATES IN THE ABSENCE OF RULE CHANGES

A closely related question of interest is whether participation rates would have gone up in the absence of change in the vehicle assets rules. Phrased another way, did participation rates among those who were eligible under the prior program rules increase between 2001 and 2002? FNS has invested considerable effort in recent years in facilitating access to the program, and it is of interest to see whether this appears to have increased participation rates, after controlling for the confounding factor of the group newly eligible under the related vehicle rules.

This question is a somewhat complicated one to address because we cannot directly observe how many of the participants in the program fall into the "newly eligible" category.[5] There are, however, some strong reasons for believing that participation rates in 2002 may have been relatively low among the individuals who were newly eligible due to the changes in the vehicle rules. First, it seems likely that there were lags in these households realizing that they were eligible and submitting applications. It is reasonable to believe that any time a new group of households becomes eligible, there are some lags before they reach their eventual long-run participation rates.[6]

Another reason we believe that participation rates may be relatively low among the newly-eligible group is based on the characteristics of these households. An earlier analysis by Rosso (2003) suggests that, on average, low-income households who were ineligible due to vehicle holdings under the old asset rules (a) tend to have higher incomes than the typical FSP household; (b) are more likely than other low-income households to contain a household member who is working; and (c) are more likely to include a married couple. These are all characteristics that tend to be associated with relatively low FSP participations rates. It is reasonable to think that *even in the long run after initial lags are over,* these households may have lower participation rates than most FSP participants, thus drawing the average participation rates down.

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[5] "Newly eligible" is defined for this discussion as a person who is FSP-eligible under current vehicle rules but would not be eligible under the program's previous treatment of vehicle assets.

[6] Wemmerus & Gottlieb, 1998, found a lag of about one year before newly eligible households reached steady-state participation in a vehicle expansion demonstration project. Trippe and Doyle, 1992, found that the participation rate among newly eligible individuals was still very low (7 percent compared with 59 percent among all eligible individuals) two years after implementation of more generous asset limits and other eligibility criteria under the 1985 Food Security Act.

To explore the possible impacts of these factors on participation rates in 2001 and 2002, we conducted a simulation exercise to examine the implied participation rate for individuals who are eligible under the old vehicle rules, given various assumed participation rates for newly eligible individuals. As discussed elsewhere in this report, the average participation rate among all FSP eligibles is estimated to be about 54 percent. Based on the factors discussed above, we believe that it is very likely that the participation rate of newly eligible individuals in 2001 and 2002 was considerably lower—probably between 10 and 40 percent. For purposes of analysis, we also assume that the 2002 newly eligible participation rate was at least as high as the 2001 rate, because for many of the newly eligible individuals, greater time had elapsed during which they could have applied to the program.

Table 2 presents the implied participation rates for non-newly eligible individuals in 2001 and 2002 under these assumptions. In the final column of Table 2, we also estimate the resulting implied change in the participation rate for individuals who were eligible under the old rules. As an example, assume that the participation rate among newly eligibles was 20.0 percent in 2001 and 30.0 percent in 2002 (this corresponds to the sixth row of numbers in the table). As shown in Table 2, the implied participation rate of non-newly eligible individuals would be 54.4 percent in 2001 and 55.8 percent in 2002, with an implied increase of 1.3 percentage points. Based on the numbers in the table, we believe the likely change in participation rate from 2001 to 2002 among individuals who were eligible for the FSP under the old vehicle rules falls in the range of 0.1 and 2.7 percentage points. It is important to note that this range should not be interpreted as a confidence interval. Rather it demonstrates the sensitivity of the changes in participation rates of individuals eligible under the old law to differing assumptions about the newly eligible individuals. Further, in addition to variation due to uncertain assumptions about the participation rates of the newly eligible individuals, the boundary points of this range are subject—like all statistics in this report—to statistical sampling error and other errors in simulating eligibility.

RECENT TRENDS IN PARTICIPATION RATES

The rate of participation among all eligible individuals fell from 56 percent in 1999 to 53 percent in 2001 and then rose in 2002 by less than one percentage point to 54 percent (Table 3, Figure 1).[7] The participation rate fell in 2000 because, while both the number of participants and the number of eligible individuals were declining, the number of participants fell more quickly than the number of eligible individuals. In 2001, both the number of participants and the number of eligible individuals began to rise during a period of expansive eligibility rules for vehicles. However, the participation rate continued to fall because the number of eligible individuals increased substantially while the increase in participants lagged behind.[8] By 2002, the increase in participants was greater than the increase in eligible individuals, resulting in a rise in the participation rate. In 2002, 18.7 million individuals participated in the FSP out of 34.7 million eligible individuals.

Both the household and benefit participation rates also fell through 2001 and then rose in 2002. The household rate fell almost four percentage points from 1999 to 2001 and then rose by less than one point to 48 percent in 2002. The benefit participation rate fell slightly more than four percentage points from 1999 to 2001 and then rose one point to 63 percent in 2002. Because those eligible for high benefits are more likely to participate than those eligible for low benefits, the benefit rate is consistently higher than the individual or household rates. Since 1994, the individual rate has been slightly higher than the household rate, although still lower than the benefit participation rate.

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[7] We present two estimates for 1999 in Table 1 and Figure 1. The September 1999 estimate is consistent methodologically with estimates for September 1994 – September 1998, and the FY 1999 estimate is consistent with the estimates for FY 2000 – FY 2002 presented in this report.

[8] We saw a similar pattern after 1985 when asset limits were raised. In general, when FSP rules change to expand eligibility, we expect the participation rate of newly-eligible individuals to be relatively low initially and then increase over time as word of expanded eligibility spreads.

The number of individuals eligible for the FSP increased substantially in 2001 and 2002 as a result of changes to the FSP and an increase in poverty. As mentioned above, eligibility rules pertaining to vehicles were expanded, increasing the number of individuals who pass the asset test. An increase in the number of families with incomes below the poverty level resulted in an increase in the number of individuals who passed the income tests in 2001.

PARTICIPATION RATES FOR SUBGROUPS

FSP participation rates vary by demographic and economic subgroup. Historically, participation rates have been relatively high for TANF and Supplemental Security Income (SSI) recipients, individuals in households with very low incomes, and children. Conversely, participation rates have been relatively low for citizen children living with noncitizen adults, individuals in households with incomes above poverty, and the elderly. This pattern remained true in 2002. Table 4 presents individual participation rates by subgroup for 2002.

TRENDS IN PARTICPATION RATES FOR SUBGROUPS

We examine trends in individual participation rates among subgroups to determine how well the FSP is reaching various types of households.[9] Trends in participation rates for many major subgroups rose in 2002 along with the overall participation rate. However, participation rates for some subgroups fell or held constant. Table 5 provides a summary of subgroup trends.

For many subgroups, participation rates followed the trend in the overall participation rate, falling from 1999 to 2001 and then rising in 2002. However, the amount of the rate change varied among these subgroups, as indicated below and shown in Tables 6 and 7.

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[9] Individual, household, and benefit participation rates by subgroup for 2002 are presented in Appendix A and for 1999 – 2001 in the *Technical Appendices* to this report at www.fns.usda. gov/oane/MENU/Published/FSP/participation.htm.

- *Disabled Nonelderly Adults*. The participation rate for disabled nonelderly adults fell by 5 points from 1999 to 2001 and then rose by 2 points in 2002.

- *Citizen Children Living in Households with Noncitizen Adults*. The participation rate for this subgroup fell by 3 points from 1999 to 2001 and then rose by 7 points in 2002.

- *Individuals in Households without Any Noncitizens or Nondisabled Childless Adults Subject to Work Registration*. The participation rate for these individuals fell by 3 points from 1999 to 2001 and then rose by 1 point in 2002.[10]

- *Individuals in Households with Elderly SSI*. The participation rate for individuals in households with elderly SSI fell by 11 points from 1999 to 2001 and then rose by 8 points in 2002.

- *Individuals in Households with Nonelderly SSI*. The participation rate for individuals in households with nonelderly SSI fell by 5 points from 1999 to 2001 and then rose by 9 points in 2002.

- *Individuals in Households with Very Low Income (1 – 50 Percent of Poverty)*. The participation rate for very low-income individuals fell by 1 point from 1999 to 2001 and then rose by 8 points in 2002.

Some subgroups followed trends that differ from the overall trends. For example, the rates for some subgroups rose in 2000 and then fell from 2000 to 2002, while rates for others either rose or fell across the entire period. The following subgroups have participation rate trends that differ from the overall rate.

- *Children*. The participation rate for children fluctuated around 70 percent from 1999 to 2002.

- *Elderly*. The participation rate for elderly individuals continued to fall in 2002, falling by a total of 4 points from 1999 to 2002.

- *Noncitizens.* The participation rate for noncitizens rose by 9 points in 2000 and then fell by 12 points from 2000 to 2002.

- *Individuals in Households with One Adult and Children*. The participation rate for these individuals fluctuated between 94 percent and 97 percent.[11]

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[10] See Appendix Table B.3 for participation rates of subgroups of these individuals.

[11] See Appendix Table B.2 for participation rates of subgroups of these individuals.

- *Individuals in Households with TANF*. The participation rate for individuals in households with TANF rose by 18 points from 1999 to 2002.

- *Individuals in Households with Earnings*. The participation rate for individuals in households with earnings rose by 3 points in 2000 and then remained relatively stable through 2002.

- *Individuals in Households with High Benefits (51 – 99 Percent of Maximum Benefit)*. The participation rate for these individuals rose by 1 point in 2000, fell by 5 points in 2001, and then fell by less than 1 point in 2002.

HISTORIC TRENDS IN PARTICIPATION RATES

Individual participation rates increased substantially in the late 1970s, from 31 percent in 1976 to 55 percent in 1980. Participation rates then leveled off, declining slightly to 48 percent by 1988. Through the late 1980s and early 1990s, participation rates rose rapidly, peaking in 1994 before beginning a seven-year decline.[12]

Participation rates are affected by changes in the economy, program rules, trends in other public assistance programs, and the participation decisions of eligible people.[13] The strong economy in the middle and late 1990s increased job opportunities for low-income families, thus reducing eligibility for and participation in the FSP. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) reduced eligibility by disqualifying many noncitizens from the FSP and imposing time limits for some nonelderly nondisabled childless adults unless they participate in a qualifying work activity.[14] In addition, PRWORA replaced

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[12] See Appendix Table B.1 for the change in individual participation rates from 1988 to 2002.

[13] See the *Technical Appendices* to this report at www.fns.usda.gov/oane/MENU/ Published/FSP/participation.htm for examples of specific economic and policy influences on participation rates.

[14] Some noncitizens made ineligible by PRWORA regained eligibility through the Agricultural Research, Extension and Education Reform Act of 1998 and through the Farm Security and Rural Investment Act of 2002 (though the latter changes are not reflected in this report because they were not effective until fiscal year 2003).

Aid to Families with Dependent Children (AFDC) with TANF and added a new focus on moving

people from welfare to work. The increased emphasis on work and the reduced TANF caseload

lowered FSP participation rates because households not receiving public assistance are less likely

to participate in the FSP.[15]

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[15] Individuals who receive TANF are categorically eligible for the FSP. While most individuals who leave TANF still qualify for food stamps, that eligibility is no longer automatic. As a result, some individuals are unaware that they are still eligible for the FSP and others choose not to apply. In 2001, individuals receiving TANF were three times more likely to participate in the FSP than individuals not receiving TANF.

TABLE 1

DECOMPOSITION OF CHANGE IN ELIGIBLE INDIVIDUALS, FY 1999 - 2002

	1999	2000	2001	2002
September- based estimates in Cunnyngham (2003)				
Eligible individuals (000,000s)[a]	29.0	27.7	28.3	29.7 [b]
Participants (000,000s)	17.1	16.6	17.4	19.3
Participation rate under previous methodology	58.8%	59.7%	61.6%	65.0%
Estimates after change to fiscal year estimates in Cunnyngham (2003)				
Eligible individuals (000,000s)[a]	29.0	27.8	28.3	29.7 [b]
Change in eligibles from previous panel	0.0	0.1	0.0	-0.1
Participants (000,000s)	17.7	16.7	16.9	18.7
Participation rate under previous methodology	61.0%	60.0%	59.7%	62.8%
Estimates after model improvements not related to asset equation				
Eligible individuals (000,000s)[a]	29.1	28.0	28.6	30.1
Change in eligibles from previous panel	0.1	0.2	0.3	0.4
Estimates after revising the asset eligibility imputation equation and used updated SIPP model				
Eligible individuals (000,000s)[a]	31.5	30.0	30.6	32.0
Change in eligibles from previous panel	2.4	2.0	2.0	1.9
Estimates reflecting expanded vehicle rules, presented in Table 1 of this report				
Eligible individuals (000,000s)	31.5	30.0	31.8	34.7
Change in eligibles from previous panel	0.0	0.0	1.2	2.7
Participants (000,000s)	17.7	16.7	16.9	18.7
Participation rate	56.2%	55.7%	53.2%	53.8%

[a] The 2001 and 2002 estimates of eligible individuals do not include individuals made eligible under relaxed vehicle rules.

[b] These estimates were not presented in Cunnyngham (2003), but were estimated using methodolgy similar, although not identical, to the methodology used to produce the estimates that were published in that report. The estimated number of people eligible and the associated participation rates do not reflect any of the technical improvements or program policy reforms discussed in the text. They do not, therefore, represent reasonable estimates of participation rates in 2002. They are presented here to help illustrate the relative contribution of the technical improvements and policy reforms on the estimated number of people eligible for benefits.

TABLE 2

ASSUMED PARTICIPATION RATES FOR NEWLY ELIGIBLE INDVIDUALS AND RESULTING IMPLIED PARTICIPATION RATES FOR
NON-NEWLY ELIGIBLE INDIVIDUALS, 2001 AND 2002

| 2001 | | 2002 | | Implied Change in |
Assumed Participation Rate of Individuals Newly Eligible Under Expanded Vehicle Rules	Resulting Implied Participation Rate for Individuals Eligible Under the Old Vehicle Rules	Assumed Participation Rate of Individuals Newly Eligible Under Expanded Vehicle Rules	Resulting Implied Participation Rate for Individuals Eligible Under the Old Vehicle Rules	Participation Rate of Individuals Eligible Under the Old Vehicle Rules, 2001 to 2002
10.0	54.8	10.0	57.5	2.7
10.0	54.8	20.0	56.6	1.8
10.0	54.8	30.0	55.8	1.0
10.0	54.8	40.0	54.9	0.1
20.0	54.4	20.0	56.6	2.2
20.0	54.4	30.0	55.8	1.3
20.0	54.4	40.0	54.9	0.5
30.0	54.1	30.0	55.8	1.7
30.0	54.1	40.0	54.9	0.9
40.0	53.7	40.0	54.9	1.3

TABLE 3

MONTHLY NUMBER OF ELIGIBLE AND PARTICIPATING INDIVIDUALS, HOUSEHOLDS, AND BENEFITS, AND PARTICIPATION RATES, 1976 - 2002

	Eligible (000's)			Participating (000's)			Participation Rates (%)		
	Individuals	Households	Benefits	Individuals	Households	Benefits	Individuals	Households	Benefits
September 1976[a]	50,061	16,282	$1,075,819	15,880	5,308	$375,461	31.1	32.6	34.9
February 1978	40,175	13,984	934,427	15,387	5,286	398,066	38.3	37.8	42.6
August 1980	36,567	14,042	1,108,330	20,185	7,372	689,381	55.2	52.5	62.2
August 1982	39,364	14,538	1,352,251	20,548	7,487	785,658	52.2	51.5	58.1
August 1984	38,591	14,194	1,386,231	19,990	7,324	841,442	51.8	51.6	60.7
August 1986	40,061	15,273	1,544,833	19,069	7,102	860,472	47.6	46.5	55.7
August 1988	38,166	14,896	1,646,310	18,358	7,016	907,117	48.1	47.1	55.1
August 1990	37,631	14,523	1,905,141	20,396	7,973	1,188,808	54.2	54.9	62.4
August 1991	40,989	15,574	2,229,403	23,364	9,204	1,471,406	57.0	59.1	66.0
August 1992	43,474	16,627	2,491,671	25,759	10,238	1,749,058	59.3	61.6	70.2
August 1993	45,241	17,031	2,515,761	27,260	10,900	1,839,469	60.3	64.0	73.1
August 1994 [b]	44,327	17,040	2,473,299	27,207	11,005	1,873,953	61.4	64.6	75.8
September 1994 [b]	35,053	15,305	2,028,290	26,229	10,659	1,747,990	74.8	69.6	86.2
September 1995	34,665	14,994	2,017,983	25,213	10,374	1,751,560	72.7	69.2	86.8
September 1996	34,478	15,264	2,060,242	23,874	9,934	1,706,230	69.2	65.1	82.8
September 1997	31,818	14,692	1,913,367	20,365	8,446	1,407,148	64.0	57.5	73.5
September 1998	30,350	14,024	1,836,184	18,152	7,606	1,253,632	59.8	54.2	68.3
September 1999 [c]	29,502	13,723	1,779,829	17,081	7,280	1,199,679	57.9	53.0	67.4
FY 1999 [c]	31,528	14,503	1,876,732	17,710	7,496	1,251,475	56.2	51.7	66.7
FY 2000	29,968	14,296	1,795,209	16,705	7,157	1,192,194	55.7	50.1	66.4
FY 2001	31,783	15,162	1,986,479	16,898	7,285	1,239,291	53.2	48.0	62.4
FY 2002	34,693	16,609	2,290,877	18,656	8,023	1,450,803	53.8	48.3	63.3
Change (2001 to 2002)	9.2%	9.5%	15.3%	10.4%	10.1%	17.1%	0.6 points	0.3 points	0.9 points

Source: FSP Program Operations data, FSPQC data, and March CPS data for the years shown.

[a]The benefit rate for 1976 and 1978 is based on the net benefit (maximum benefits-purchase requirement). Hence, the benefit rates are consistent over all years.

[b]There are two estimates for 1994 due to revised methodologies for determining food stamp eligibility and for determining the number of participants. The original estimate (August 1994) is based on the methodology employed in all previous trends studies, while the revised estimate (September 1999) is based on the newer methodology.

[c] There are two estimates for 1999 due to reweighting of the March 2000 - 2003 CPS files to Census 2000 by the Census Bureau and revised methodologies for determining food stamp eligibility. The original estimate (September 1999) is consistent methodologically with estimates for September 1994 - September 1998, while the revised estimate (FY 1999) is consistent with the estimates for FY 2000 - FY 2002.

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FIGURE 1

TRENDS IN MONTHLY FSP PARTICIPATION RATES, 1976 - 2002
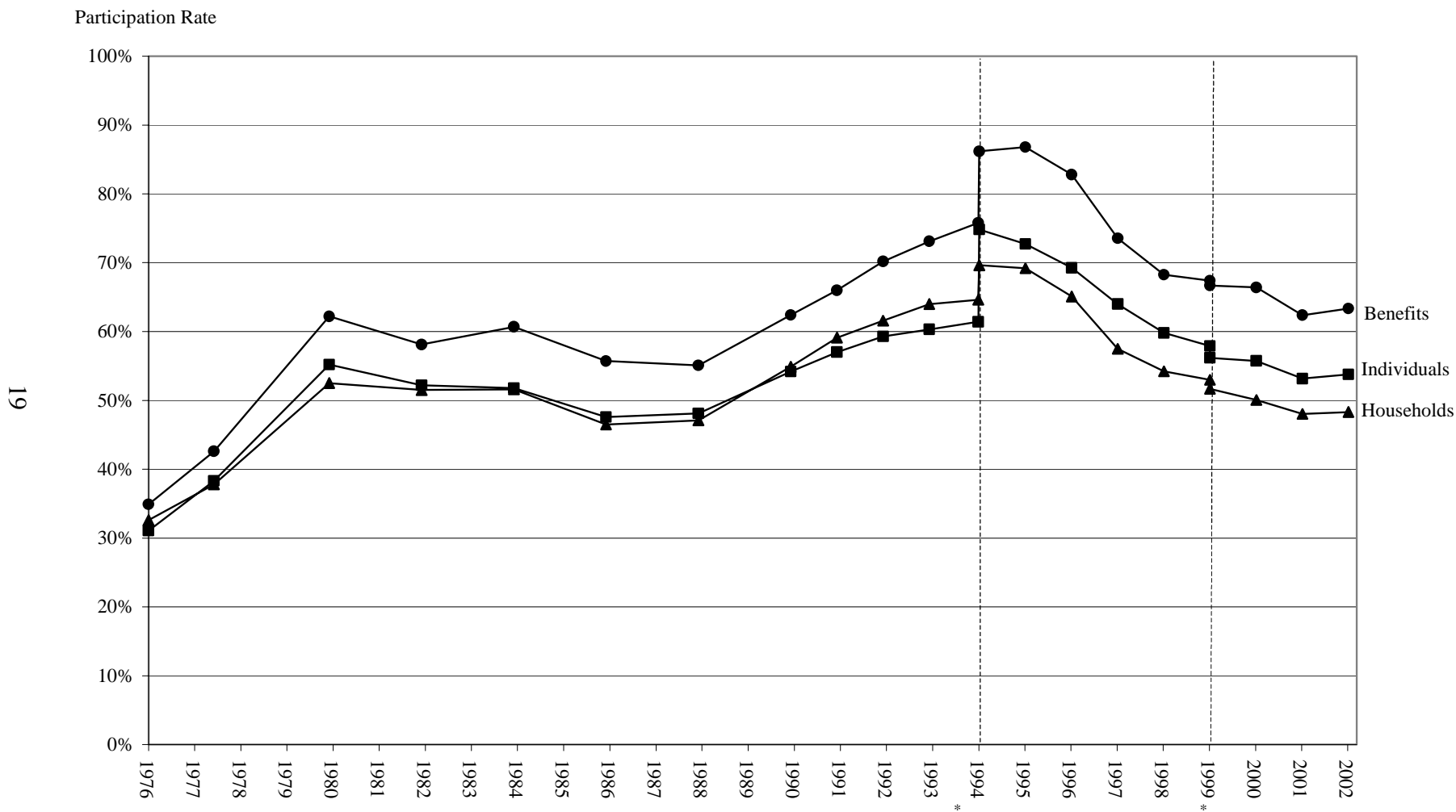
Participation Rate

Source: FSP Program Operations data, FSPQC data, and March CPS data for the years shown.

*There are breaks in the time series in 1994 and 1999 due to revisions in the methodology for determining eligibility.

TABLE 4

SUMMARY OF INDIVIDUAL PARTICIPATION RATES BY SUBGROUP, FY 2002

	Participation Rate
Nondisabled Childless Adults Subject to Work Registration[a]	20.0
Individuals in Households with Income Slightly Above Poverty (101 - 130 Percent of Poverty)	24.8
Elderly Individuals	26.9
Noncitizens[b]	39.4
Citizen Children Living with Noncitizen Adults [c]	43.7
Individuals in Households with Earnings	46.1
Individuals in All Households	**53.8**
Children	70.3
Individuals in Households with Elderly SSI	88.0
Individuals in Households with Very Low Income (1 - 50 Percent of Poverty)	92.4
Individuals in Households with One Adult and Children	96.1
Individuals in Households with Nonelderly SSI	97.0
Individuals in Households with TANF	167.9

Source: March 2003 CPS and FY 2002 FSP Program Operations Data and FSPQC Data.

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix D).

[a] Referred to as ABAWDs in previous reports, these individuals are age 18 to 49, not disabled, not living with children under age 18, and subject to work registration. With some exceptions, these individuals must meet work requirements or face time limits on benefit receipt.

[b] Noncitizens who are eligible and/or participating. This row does not include noncitizens who are outside the food stamp unit but reside in the same household.

[c] Citizen children living with a noncitizen adult in the household, regardless of the FSP-participation status of the adult.

TABLE 5

SUMMARY OF TRENDS IN INDIVIDUAL PARTICIPATION RATES, FY 1999 - FY 2002

Subgroup	Participation Rate Trend
Overall Population	Falling then rising
Age of Individual	
Children	Fluctuating
Elderly	Falling
Disabled Nonelderly Adults	Falling then rising
Citizenship	
Noncitizens [a]	Rising then falling
Citizen Children Living with Noncitizen Adult [b]	Falling then rising
Individuals in Households without Any Noncitizens or Nondisabled Childless Adults Subject to Work Registration	Falling then rising
Individuals in Households with One Adult and Children	Fluctuating
Household Income Source	
Earnings	Rising then stable
TANF	Rising
Elderly SSI	Falling then rising
Nonelderly SSI	Falling then rising
Individuals in Households with Very Low Income (1 - 50 Percent of Poverty)	Falling then rising
Individuals in Households with High Benefits (51-99 Percent of Maximum Benefit)	Rising then falling

[a] Noncitizens who are eligible and/or participating. This row does not include noncitizens who are outside the food stamp unit but reside in the same household.

[b] Citizen children living with a noncitizen adult in the household, regardless of the FSP-participation status of the adult.

TABLE 6

FSP PARTICIPATION RATES FOR INDIVIDUALS BY DEMOGRAPHIC CHARACTERISTICS, FY 1999 - FY 2002

	Participation Rates				Eligible Individuals (000s)		Participating Individuals (000s)	
	FY 1999	FY 2000	FY 2001	FY 2002	FY 1999	FY 2002	FY 1999	FY 2002
Individuals in All Households	56.2	55.7	53.2	53.8	31,528	34,693	17,710	18,656
Household Size								
Small (1-2 members)	45.8	43.8	42.3	42.6	10,112	11,829	4,630	5,038
Medium (3-4 members)	67.6	68.2	62.5	64.5	3,111	3,402	2,104	2,196
Large (5 or more members)	59.6	60.4	61.5	57.3	1,280	1,378	763	790
Age of Individual								
Children	69.7	71.4	69.1	70.3	13,092	13,537	9,127	9,514
Preschool Age (0 to 4 years)	76.5	73.3	71.1	72.4	3,857	4,363	2,950	3,158
School Age (5 to 17 years)	66.9	70.5	68.2	69.3	9,235	9,174	6,177	6,356
Nonelderly Adults (18 to 59 years)	52.9	51.9	49.1	49.9	13,092	15,019	6,924	7,488
Elderly Individuals	31.1	30.3	28.1	26.9	5,344	6,137	1,659	1,654
Disabled Nonelderly Adults	48.6	45.9	44.0	46.0	3,251	3,788	1,580	1,742
Nondisabled Childless Adults Subject to Work Registration[a]	20.2	19.9	19.3	20.0	1,749	2,303	354	460
Noncitizens[b]	43.1	51.6	43.0	39.4	1,690	1,576	728	621
Citizen Children Living with Noncitizen Adults[c]	40.1	40.0	37.2	43.7	2,590	2,743	1,038	1,199
Individuals in Households Without Any Noncitizens or Nondisabled Childless Adults Subject to Work Registration	60.1	58.8	57.0	57.9	26,632	29,379	16,005	17,011
Household Composition								
Households with Children	67.0	68.0	64.7	65.4	20,855	22,194	13,967	14,507
One Adult	94.3	96.5	93.8	96.1	9,083	8,915	8,563	8,565
Married Household Head	49.4	49.6	44.1	44.7	6,684	7,665	3,303	3,430
Other Multiple Adults	42.4	39.5	41.4	39.2	3,190	3,808	1,351	1,493
Children Only	39.5	47.3	46.3	56.5	1,898	1,806	749	1,020
Households without Children	35.1	34.2	32.9	33.2	10,673	12,499	3,743	4,148

Source: FSP Program Operations Data, FSPQC Data, and CPS Data for the years shown

[a] Referred to as ABAWDs in previous reports, these individuals are age 18 to 49, not disabled, not living with children under age 18, and are subject to work registration. With some exceptions, these individuals must meet work requirements or face time limit on benefit receipt.

[b] Noncitizens who are eligible and/or participating. This row does not include noncitizens who are outside the food stamp unit but reside in the same household.

[c] Citizen children living with a noncitizen adult in the household, regardless of the FSP-participation of the adult.

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

TABLE 7

FSP PARTICIPATION RATES FOR INDIVIDUALS BY ECONOMIC CHARACTERISTICS OF HOUSEHOLDS,
FY 1999 - FY 2002

	Participation Rates				Eligible Individuals (000s)		Participating Individuals (000s)	
	FY 1999	FY 2000	FY 2001	FY 2002	FY 1999	FY 2002	FY 1999	FY 2002
Individuals in All Households	56.2	55.7	53.2	53.8	31,528	34,693	17,710	18,656
Household Income Source								
Earnings	43.2	46.0	45.7	46.1	15,412	16,343	6,665	7,530
TANF	149.7	153.1	166.2	167.9	4,425	3,155	6,624	5,297
Elderly SSI	91.8	90.1	80.5	88.0	1,236	1,261	1,135	1,110
Nonelderly SSI	92.9	93.3	88.3	97.0	3,267	3,364	3,036	3,264
Household Income as a Percentage of Poverty Level								
No Income	30.1	28.3	27.7	30.3	3,779	5,056	1,138	1,530
1 to 50%	85.5	85.1	84.9	92.4	6,660	6,282	5,697	5,807
51 to 100%	73.2	74.3	70.7	68.6	12,279	13,237	8,983	9,074
101 to 130%	24.1	25.8	23.7	24.8	7,479	8,533	1,800	2,115
130%+	6.9	7.5	8.2	8.3	1,331	1,586	92	131
Household Benefit as a Percentage of Maximum Benefit								
1 to 50%	41.5	42.7	40.4	40.1	14,865	16,412	6,168	6,573
51 to 99%	82.5	83.5	79.0	78.4	10,430	10,590	8,605	8,299
100%	47.1	45.0	45.2	49.2	6,234	7,691	2,937	3,784

Source: FSP Program Operations Data, FSPQC Data, and CPS Data for the years shown

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

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APPENDIX A

PARTICIPATION RATES IN FY 2002

TABLE A.1

INDIVIDUAL, HOUSEHOLD, AND BENEFIT PARTICIPATION RATES, FISCAL YEAR 2002

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals	18,655,911	34,693,233	53.77%
Food Stamp Household	8,023,197	16,608,898	48.31%
Benefits	1,450,803,040	2,290,877,219	63.33%
Average Food Stamp Household Size	2.33		
Average Per Capita Benefit	77.77		

TABLE A.2

HOUSEHOLD PARTICIPATION RATES BY HOUSEHOLD SIZE, FISCAL YEAR 2002

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Household Size			
1 Person	3,436,659	8,516,068	40.35%
2 People	1,601,146	3,313,341	48.32%
3 People	1,317,850	1,885,441	69.90%
4 People	877,842	1,516,412	57.89%
5 People	463,859	805,810	57.56%
6 or More People	325,842	571,826	56.98%
Total Households	8,023,197	16,608,898	48.31%

TABLE A.3

INDIVIDUAL PARTICIPATION RATES BY DEMOGRAPHIC CHARACTERISTICS, FISCAL YEAR 2002

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals in All Households	18,655,911	34,693,233	53.77%
Age of Individual			
Children Under Age 18	9,513,896	13,537,219	70.28%
Preschool	3,157,926	4,363,413	72.37%
School-age	6,355,969	9,173,807	69.28%
Adults Age 18 to 59	7,488,159	15,018,590	49.86%
Elderly Age 60 and Over	1,653,856	6,137,424	26.95%
Living Alone	1,208,891	3,307,649	36.55%
Living with Others	444,965	2,829,774	15.72%
Disabled Nonelderly Adults	1,741,615	3,787,826	45.98%
Nondisabled Childless Adults Subject to Work Registration	459,698	2,303,237	19.96%
Noncitizens	621,286	1,576,195	39.42%
Citizen Children Living with Noncitizen Adults	1,199,485	2,743,377	43.72%
Employment Status of Nonelderly Adults			
Employed	1,819,352	5,026,275	36.20%
Unemployed	556,409	1,657,498	33.57%
Not in the Labor Force	4,756,001	8,334,817	57.06%
Individuals by Race/Ethnicity of Household Head[a]			
Black or African American Only	6,499,607	9,374,369	69.33%
Hispanic	3,350,154	7,556,647	44.33%
White Only	8,004,829	16,084,555	49.77%
Not Tabulated Above	801,321	1,677,662	47.76%
Individuals by Household Composition			
Households with Children	14,507,453	22,193,850	65.37%
One Adult	8,565,171	8,915,078	96.08%
Married Household Head	3,429,652	7,665,077	44.74%
Other Multiple Adults	1,492,928	3,807,648	39.21%
Children Only	1,019,703	1,806,047	56.46%
Households without Children	4,148,457	12,499,384	33.19%
Gender of Individual			
Male	7,612,045	14,982,717	50.81%
Female	11,043,866	19,710,516	56.03%
Metropolitan Status			
Urban	13,809,996	26,589,174	51.94%
Rural	4,845,915	8,104,059	59.80%

[a]Race categories were expanded in the March 2003 CPS to include multi-racial categories. These new categories are included as part of "Not Tabulated Above". Because of the revised race categories, caution should be used when comparing the FY 2002 estimate

INDIVIDUAL PARTICIPATION RATES BY ECONOMIC CHARACTERISTICS OF HOUSEHOLDS, FISCAL
YEAR 2002

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals in All Households	18,655,911	34,693,233	53.77%
Individuals by Household Income Sources			
No Earnings	11,125,552	18,350,665	60.63%
Earnings	7,530,359	16,342,569	46.08%
No TANF	6,101,547	15,271,150	39.95%
TANF	1,428,812	1,071,419	133.36%
TANF	5,297,441	3,155,377	167.89%
Unemployment Compensation	718,777	641,529	112.04%
Nonelderly SSI Benefits	3,263,957	3,364,436	97.01%
Elderly SSI Benefits	1,110,408	1,261,274	88.04%
Individuals by Household Income as a Percentage of Poverty Level			
Total 100% of Poverty or Less	16,410,254	24,574,843	66.78%
No Income	1,529,689	5,055,757	30.26%
>0-50%	5,806,689	6,282,412	92.43%
51-100%	9,073,876	13,236,674	68.55%
Total Greater Than 100 % of Poverty	2,245,656	10,118,390	22.19%
101-130%	2,114,676	8,532,764	24.78%
131% or More	130,980	1,585,626	8.26%
Individuals by Monthly Household Benefit			
$10 or Less	980,824	3,946,075	24.86%
$11-25	488,409	1,034,045	47.23%
$26-50	749,842	1,819,277	41.22%
$51-75	812,754	1,868,278	43.50%
$76-100	841,134	1,960,770	42.90%
$101-150	2,800,024	6,367,735	43.97%
$151-200	1,642,453	2,846,690	57.70%
$ 201 or More	10,340,471	14,850,362	69.63%
Benefit as a Percentage of Maximum Benefit			
Low Benefits (1 - 50%)	6,573,121	16,411,814	40.05%
1 - 25%	2,960,745	8,958,014	33.05%
26 - 50%	3,612,376	7,453,800	48.46%
High Benefits (51 - 99%)	8,298,798	10,590,024	78.36%
51 - 75%	4,439,026	6,619,259	67.06%
76 - 99%	3,859,772	3,970,766	97.20%
100%	3,783,992	7,691,394	49.20%

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

INDIVIDUAL PARTICIPATION RATES BY HOUSEHOLD COMPOSITION, FISCAL YEAR 2002
Households with Children

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals in Households with Children	14,507,453	22,193,850	65.37%
Age of Individual			
Children Under Age 18	9,512,798	13,537,219	70.27%
Adults Age 18 to 59	4,902,802	8,290,197	59.14%
Elderly Age 60 and Over	91,854	366,433	25.07%
Individuals by Household Income Sources			
No Income	987,942	2,807,831	35.19%
No Earnings	7,418,114	8,333,568	89.01%
Earnings	7,089,340	13,860,282	51.15%
TANF	5,247,857	2,890,823	181.54%
Earnings	1,419,995	1,004,582	141.35%
No Earnings	3,827,862	1,886,241	202.94%
No TANF	9,259,597	19,303,027	47.97%
Earnings	5,669,345	12,855,701	44.10%
No Earnings	3,590,252	6,447,326	55.69%
Social Security	1,363,497	2,395,128	56.93%
Individuals by Household Income as a Percentage of Poverty Level			
Total 100% of Poverty or Less	12,771,422	16,369,944	78.02%
No Income	987,942	2,807,831	35.19%
>0-50%	5,285,593	4,994,083	105.84%
51-100%	6,497,887	8,568,030	75.84%
Total Greater Than 100 % of Poverty	1,736,032	5,823,906	29.81%
101-130%	1,671,341	5,510,092	30.33%
131% or More	64,691	313,813	20.61%
Individuals by Household Earnings as a Percentage of Poverty Level			
Total 100% of Poverty or Less	13,584,005	17,809,498	76.27%
No Earnings	7,418,114	8,333,568	89.01%
>0-50%	2,713,051	2,640,739	102.74%
51-100%	3,452,840	6,835,191	50.52%
Total Greater Than 100 % of Poverty	923,448	4,384,352	21.06%
101-130%	902,589	4,261,748	21.18%
131% or More	20,859	122,604	17.01%

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

TABLE A.5B

INDIVIDUAL PARTICIPATION RATES BY HOUSEHOLD COMPOSITION, FISCAL YEAR 2002
Households with One Adult and Children

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals in Households with One Adult and Children	8,565,171	8,915,078	96.08%
Age of Individual			
Children Under Age 18	5,794,039	5,897,564	98.24%
Adults Age 18 to 59	2,726,518	2,929,350	93.08%
Elderly Age 60 and Over	43,339	88,164	49.16%
Individuals by Household Income Sources			
No Income	640,955	1,601,712	40.02%
No Earnings	4,998,242	4,675,888	106.89%
Earnings	3,566,928	4,239,190	84.14%
TANF	3,445,759	1,968,050	175.08%
Earnings	792,145	574,335	137.92%
No Earnings	2,653,615	1,393,715	190.40%
No TANF	5,119,411	6,947,027	73.69%
Earnings	2,774,784	3,664,855	75.71%
No Earnings	2,344,628	3,282,173	71.44%
Social Security	753,691	806,844	93.41%
Individuals by Household Income as a Percentage of Poverty Level			
Total 100% of Poverty or Less	7,682,458	7,068,296	108.69%
No Income	640,955	1,601,712	40.02%
>0-50%	3,470,838	2,599,966	133.50%
51-100%	3,570,666	2,866,618	124.56%
Total Greater Than 100 % of Poverty	882,713	1,846,782	47.80%
101-130%	830,320	1,656,829	50.11%
131% or More	52,393	189,953	27.58%
Individuals by Household Earnings as a Percentage of Poverty Level			
Total 100% of Poverty or Less	8,154,523	7,680,355	106.17%
No Earnings	4,998,242	4,675,888	106.89%
>0-50%	1,420,014	941,103	150.89%
51-100%	1,736,267	2,063,364	84.15%
Total Greater Than 100 % of Poverty	410,647	1,234,723	33.26%
101-130%	390,671	1,151,841	33.92%
131% or More	19,976	82,882	24.10%

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

INDIVIDUAL PARTICIPATION RATES BY HOUSEHOLD COMPOSITION, FISCAL YEAR 2002
Households with Married Household Head and Children

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals in Households with Married Household Head and Children	3,429,652	7,665,077	44.74%
Age of Individual			
Children Under Age 18	1,945,202	4,063,916	47.87%
Adults Age 18 to 59	1,449,479	3,426,045	42.31%
Elderly Age 60 and Over	34,972	175,116	19.97%
Individuals by Household Income Sources			
No Income	189,040	579,559	32.62%
No Earnings	1,120,212	1,891,680	59.22%
Earnings	2,309,440	5,773,397	40.00%
TANF	731,883	590,362	123.97%
Earnings	299,079	310,689	96.26%
No Earnings	432,804	279,673	154.75%
No TANF	2,697,769	7,074,715	38.13%
Earnings	2,010,362	5,462,707	36.80%
No Earnings	687,408	1,612,008	42.64%
Social Security	343,219	946,137	36.28%
Individuals by Household Income as a Percentage of Poverty Level			
Total 100% of Poverty or Less	2,841,955	5,078,963	55.96%
No Income	189,040	579,559	32.62%
>0-50%	927,829	1,204,105	77.06%
51-100%	1,725,086	3,295,298	52.35%
Total Greater Than 100 % of Poverty	587,698	2,586,114	22.73%
101-130%	584,137	2,510,492	23.27%
131% or More	3,561	75,622	4.71%
Individuals by Household Earnings as a Percentage of Poverty Level			
Total 100% of Poverty or Less	3,036,107	5,596,318	54.25%
No Earnings	1,120,212	1,891,680	59.22%
>0-50%	775,938	941,795	82.39%
51-100%	1,139,956	2,762,842	41.26%
Total Greater Than 100 % of Poverty	393,546	2,068,759	19.02%
101-130%	393,055	2,037,671	19.29%
131% or More	490	31,088	1.58%

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

TABLE A.5D

INDIVIDUAL PARTICIPATION RATES BY HOUSEHOLD COMPOSITION, FISCAL YEAR 2002
Households with Other Multiple Adults and Children

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals in Households with Other Multiple Adults and Children	1,492,928	3,807,648	39.21%
Age of Individual			
Children Under Age 18	752,897	1,769,693	42.54%
Adults Age 18 to 59	726,493	1,934,802	37.55%
Elderly Age 60 and Over	13,537	103,153	13.12%
Individuals by Household Income Sources			
No Income	69,854	418,087	16.71%
No Earnings	676,945	1,387,753	48.78%
Earnings	815,982	2,419,895	33.72%
TANF	531,276	332,410	159.83%
Earnings	212,423	119,557	177.67%
No Earnings	318,853	212,853	149.80%
No TANF	961,652	3,475,237	27.67%
Earnings	603,559	2,300,338	26.24%
No Earnings	358,093	1,174,900	30.48%
Social Security	228,811	638,419	35.84%
Individuals by Household Income as a Percentage of Poverty Level			
Total 100% of Poverty or Less	1,292,075	2,808,799	46.00%
No Income	69,854	418,087	16.71%
>0-50%	487,290	839,380	58.05%
51-100%	734,930	1,551,332	47.37%
Total Greater Than 100 % of Poverty	200,853	998,849	20.11%
101-130%	199,081	955,254	20.84%
131% or More	1,771	43,594	4.06%
Individuals by Household Earnings as a Percentage of Poverty Level			
Total 100% of Poverty or Less	1,401,634	3,086,727	45.41%
No Earnings	676,945	1,387,753	48.78%
>0-50%	336,637	513,212	65.59%
51-100%	388,051	1,185,763	32.73%
Total Greater Than 100 % of Poverty	91,294	720,921	12.66%
101-130%	91,095	715,121	12.74%
131% or More	199	5,799	3.43%

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

INDIVIDUAL PARTICIPATION RATES BY HOUSEHOLD COMPOSITION, FISCAL YEAR 2002
Households with No Children

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals in Households with No Children	4,148,457	12,499,384	33.19%
Age of Individual			
Children Under Age 18	0	0	
Adults Age 18 to 59	2,585,835	6,728,393	38.43%
Elderly Age 60 and Over	1,562,622	5,770,990	27.08%
Individuals by Household Income Sources			
No Income	541,747	2,247,926	24.10%
No Earnings	3,707,438	10,017,097	37.01%
Earnings	441,019	2,482,286	17.77%
TANF	49,584	264,554	18.74%
Earnings	8,817	66,837	13.19%
No Earnings	40,767	197,717	20.62%
No TANF	4,098,873	12,234,830	33.50%
Earnings	432,202	2,415,450	17.89%
No Earnings	3,666,671	9,819,380	37.34%
Social Security	1,767,081	6,231,922	28.36%
Individuals by Household Income as a Percentage of Poverty Level			
Total 100% of Poverty or Less	3,638,833	8,204,899	44.35%
No Income	541,747	2,247,926	24.10%
>0-50%	521,096	1,288,329	40.45%
51-100%	2,575,989	4,668,644	55.18%
Total Greater Than 100 % of Poverty	509,624	4,294,484	11.87%
101-130%	443,335	3,022,671	14.67%
131% or More	66,289	1,271,813	5.21%
Individuals by Household Earnings as a Percentage of Poverty Level			
Total 100% of Poverty or Less	4,086,620	11,439,358	35.72%
No Earnings	3,707,438	10,017,097	37.01%
>0-50%	232,478	484,319	48.00%
51-100%	146,704	937,943	15.64%
Total Greater Than 100 % of Poverty	61,837	1,060,025	5.83%
101-130%	53,995	872,404	6.19%
131% or More	7,842	187,621	4.18%

TABLE A.6

PARTICIPATION RATES FOR INDIVIDUALS IN HOUSEHOLDS WITHOUT ANY NONCITIZENS OR
NONDISABLED CHILDLESS ADULTS SUBJECT TO WORK REGISTRATION, FISCAL YEAR 2002

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Individuals in Households Without Any Noncitizens or Nondisabled Childless Adults Subject to Work Registration	17,010,629	29,379,467	57.90%
Age of Individual			
Children Under Age 18	8,960,502	12,192,705	73.49%
Adults Age 18 to 59	6,606,917	11,478,391	57.56%
Elderly Age 60 and Over	1,443,210	5,708,372	25.28%
Disabled Nonelderly Adults	1,665,456	3,476,573	47.91%
Individuals by Household Composition			
One Adult and Children	8,336,774	8,616,845	96.75%
Married Household Head and Children	2,932,861	6,507,982	45.07%
No Children	3,362,263	9,308,075	36.12%
Individuals by Household Income Sources			
Earnings	6,615,386	13,543,079	48.85%
No Earnings	10,395,243	15,836,388	65.64%
TANF	4,951,327	2,945,355	168.11%
Individuals by Household Benefit as a Percentage of Maximum Benefit			
1-50%	6,055,742	14,493,335	41.78%
51- 99%	7,663,852	8,943,839	85.69%

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

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TABLE A.7

HOUSEHOLD PARTICIPATION RATES, FISCAL YEAR 2002

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Households with Elderly	1,502,654	5,426,610	27.69%
Households with Children	4,339,372	6,592,217	65.83%
Households with Disabled Nonelderly Adults	1,681,443	3,349,450	50.20%
Households by Composition			
Households with Children	4,339,372	6,592,217	65.83%
One Adult and Children	2,764,193	3,005,123	91.98%
Married Household Head and Children	759,674	1,746,756	43.49%
Other Multiple Adults and Children	348,025	870,545	39.98%
Children Only	467,480	969,793	48.20%
Households with No Children	3,683,825	10,016,681	36.78%
Households by Income Source			
Earnings	2,327,328	5,725,170	40.65%
TANF	1,678,023	1,058,383	158.55%
SSI	2,367,075	2,504,744	94.50%
Households with Noncitizens	413,493	942,366	43.88%
Households with Nondisabled Childless Adults Subject to Work Registration	432,964	1,904,254	22.74%
Households by Income as a Percentage of Poverty Level			
No Income	847,351	2,844,884	29.79%
>0-50 %	2,047,522	2,504,665	81.75%
51-100%	4,184,299	6,151,831	68.02%
>100% of Poverty	944,025	5,107,518	18.48%

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

TABLE A.8

BENEFIT PARTICIPATION RATES, FISCAL YEAR 2002

	Participating (QC)	Eligible (CPS)	Participation Rate (QC/CPS)
Benefits for Elderly	99,751,017	326,752,901	29.75%
Benefits for Children	1,151,555,972	1,536,052,549	73.05%
Benefits for Disabled Nonelderly Adults	169,552,119	460,014,087	35.91%
Benefits by Household Composition			
Households with Children	1,151,555,972	1,536,052,549	73.05%
One Adult and Children	714,590,863	699,174,483	99.58%
Married Household Head and Children	237,218,471	452,842,030	51.04%
Other Multiple Adults and Children	107,138,320	241,168,623	43.29%
Children Only	92,608,319	142,867,414	63.16%
Households with No Children	299,247,068	754,824,669	38.63%
Benefits by Household Income Source			
Earnings	511,469,117	891,781,092	54.01%
TANF	429,120,164	226,742,098	184.40%
SSI	241,869,729	231,332,588	101.87%
Benefits for Households with Noncitizens	80,363,960	173,395,051	45.16%
Benefits for Households with Nondisabled Childless Adults			
Subject to Work Registration	62,757,527	255,033,896	23.98%
Benefits by Household Income as a Percentage of Poverty Level			
No Income	196,706,201	616,600,235	31.90%
>0-50 %	626,222,025	666,147,000	94.01%
51-100%	563,536,004	772,826,758	72.92%
>100% of Poverty	64,338,810	235,303,225	27.34%

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

APPENDIX B

SELECTED HISTORIC PARTICIPATION RATES

TABLE B.1

CHANGE IN INDIVIDUAL FSP PARTICIPATION RATES
1988 - 2002

Time Period	Change in Participation Rate	Change in Participants	Change in Eligible Individuals
1988-1990	6.1 points	11.1%	-1.4%
1990-1991	2.8 points	14.6%	8.9%
1991-1992	2.3 points	10.3%	6.1%
1992-1993	1.0 points	5.8%	4.1%
1993-1994[a]	1.1 points	-0.2%	-2.0%
1994-1995[a]	-2.1 points	-3.9%	-1.1%
1995-1996	-3.5 points	-5.3%	-0.5%
1996-1997	-5.2 points	-14.7%	-7.7%
1997-1998	-4.2 points	-10.9%	-4.6%
1998-1999 [b]	-1.9 points	-5.9%	-2.8%
1999-2000 [b]	-0.4 points	-5.7%	-4.9%
2000-2001	-2.6 points	1.2%	6.1%
2001-2002	0.6 points	10.4%	9.2%

Source: FSP Program Operations data, FSPQC data, and March CPS data for the years shown.

[a] There are two estimates for 1994 due to revised methodologies for determining food stamp eligibility and for determining the number of participants. The original estimate is used for the change between 1993 and 1994, while the revised estimate is used for the change between 1994 and 1995.

[b] There are two estimates for 1999 due to reweighting of the March 2000 - 2003 CPS files to Census 2000 by the Census Bureau and revised methodologies for determining food stamp eligibility. The original estimate is used for the change between 1998 and 1999, while the revised estimate is used for the change between 1999 and 2000.

TABLE B.2

PARTICIPATION RATES FOR INDIVIDUALS IN HOUSEHOLDS WITH ONE ADULT AND
CHILDREN, FY 1999 - FY 2002

	Participation Rates				Eligible Individuals		Participating Individuals	
	1999	2000	2001	2002	1999	2002	1999	2002
Individuals in Households with One Adult and Children	94.3	96.5	93.8	96.1	9,083	8,915	8,563	8,565
Household Income Source								
Earnings	74.2	82.6	85.9	84.1	4,461	4,239	3,310	3,567
TANF	107.7	131.4	151.5	137.9	913	574	983	792
No TANF	65.6	71.4	74.6	75.7	3,548	3,665	2,327	2,775
No Earnings	113.7	109.1	100.3	106.9	4,622	4,676	5,253	4,998
TANF	172.3	171.4	191.5	190.4	2,019	1,394	3,478	2,654
No TANF	68.2	67.3	61.2	71.4	2,603	3,282	1,774	2,345
TANF	152.2	159.6	180.0	175.1	2,931	1,968	4,461	3,446
Household Income as a Percentage of Poverty Level								
No Income	38.4	37.5	35.1	40.0	1,219	1,602	468	641
>0 to 50%	116.4	118.8	123.5	133.5	3,115	2,600	3,625	3,471
51 to 100%	121.2	130.1	124.6	124.6	3,066	2,867	3,717	3,571
101 to 130%	49.7	52.2	52.2	50.1	1,465	1,657	728	830
131% or More	11.2	17.0	18.6	27.6	218	190	24	52
Household Earnings as a Percentage of Poverty Level								
No Earnings	113.7	109.1	100.3	106.9	4,622	4,676	5,253	4,998
>0 to 50%	108.8	134.6	146.0	150.9	1,179	941	1,283	1,420
51 to 100%	74.3	84.6	85.3	84.1	2,232	2,063	1,659	1,736
101% or More	35.1	34.4	35.9	33.3	1,050	1,235	368	411

Source: FSP Program Operations data, FSPQC data, and March CPS data for the years shown.

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

PARTICIPATION RATES FOR INDIVIDUALS IN HOUSEHOLDS WITHOUT ANY NONDISABLED
NONELDERLY CHILDLESS ADULTS SUBJECT TO WORK REGISTRATION OR NONCITIZENS,
FY 1999 - FY 2002

	Participation Rates				Eligible Individuals		Participating Individuals	
	1999	2000	2001	2002	1999	2002	1999	2002
Individuals in Households Without Any Nondisabled Childless Adults Subject to Work Registration or Noncitizens	60.1	58.8	57.0	57.9	26,632	29,379	16,005	17,011
Age of Individual								
Children	73.5	74.0	72.7	73.5	11,515	12,193	8,462	8,961
Nonelderly Adults	59.9	58.5	56.1	57.6	10,160	11,478	6,086	6,607
Elderly Individuals	29.4	28.0	26.3	25.3	4,958	5,708	1,456	1,443
Disabled Nonelderly Adults	51.7	48.3	46.0	47.9	2,910	3,477	1,503	1,665
Household Composition								
One Adult and Children	95.4	96.5	94.9	96.7	8,665	8,617	8,266	8,337
Married Head and Children	46.9	46.8	44.2	45.1	5,730	6,508	2,690	2,933
No Children	38.3	36.4	35.4	36.1	8,067	9,308	3,088	3,362
Household Income Source								
Earnings	47.1	48.5	48.9	48.8	12,662	13,543	5,965	6,615
No Earnings	71.9	67.7	63.5	65.6	13,971	15,836	10,040	10,395
TANF	146.7	147.5	164.9	168.1	4,106	2,945	6,024	4,951
Household Benefit as a Percentage of Maximum Benefit								
1 to 50%	43.4	43.9	42.5	41.8	12,964	14,493	5,631	6,056
51 to 99%	88.5	88.6	84.2	85.7	8,870	8,944	7,848	7,664

Source: FSP Program Operations data, FSPQC data, and March CPS data for the years shown.

Note: Participation rates over 100 percent are due to reporting errors in the CPS (see Appendix C).

APPENDIX C

METHODOLOGY

APPENDIX C

The participation rates reported here rely on estimates of individuals eligible for food stamps and individuals participating in the Food Stamp Program (FSP). The estimates of eligible individuals are derived from a model that uses data from the U.S. Census Bureau's March Current Population Survey (CPS) to simulate the FSP.[16] The estimates of participants are based on FSP Program Operations data and FSP Quality Control (FSPQC) data. The resulting participation rates estimate the percentage of individuals who are both eligible for the FSP and participate in the program.[17]

In this report, the participation rates for 1999 – 2001 differ from rates published in Cunnyngham (2003) due to improvements in the methodology used to determine FSP eligibility. The primary change we made was in the routine used to impute the probability that income-eligible households that were subject to the asset test are asset-eligible. These imputation equations were updated using more recent data from the U.S. Census Bureau's Survey of Income and Program Participation (SIPP) and now capture differences in vehicle rules across states and time.[18] The national participation rate also was affected by improved methodologies to identify

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[16] The March CPS provides income and program participation information for the previous calendar year. A summary of changes in the March CPS over time is presented in the *Technical Appendices* to this report at www.fns.usda.gov/oane/MENU/Published/FSP/participation.htm.

[17] Nationwide, a relatively small number of people who are eligible for the FSP are also eligible for the Food Distribution Program on Indian Reservations (FDPIR). Individuals who choose to participate in the FDPIR may not participate in the FSP at the same time. However, because the number of individuals who are participating in the FDPIR can be estimated only with substantial sampling and nonsampling error, they are included in—rather than excluded from—the number of FSP-eligible individuals in this report. Because FDPIR participants are included in the number of eligible individuals, but not in the number of FSP participants, the FSP participation rates are slightly underestimated.

[18] For more information on the new imputation equations, see the discussion later in this appendix under Section A.4, Determining Asset Eligibility.

refugees (described in Section A.2.a, Identifying Refugees) and additional minor modeling changes. Other changes that affect only subgroup participation rates include improved methodologies to identify working poor individuals (described in Section B.1, Identifying Individuals in Households with Earnings) and revised race categories in response to the expanded multi-racial categories in the March 2003 CPS.

In addition to the improvements made to the methodology, we updated the CPS eligibility file as follows:

- The FSP gross income screen, net income screen, and maximum benefit amounts were updated to reflect the implementation of fiscal year FSP regulations.

- The regression equation used to estimate FSP net income was updated using the fiscal year FSPQC data.

We use these CPS-based participation rates to estimate both the levels and the trends in those rates. CPS-based estimates provide a good measure of trends, but for participation rates prior to 1994, these estimates provide biased measures of levels. The pre-1994 rates are biased downward because of limitations in the CPS data. Beginning with the Trends report focusing on August 1995, we improved the methodology used to estimate participation rates to account for this downward bias. We thus report two participation rates for 1994: an original rate, based on the previous methodology, and a revised rate, based on the improved methodology.

We also report two participation rates for 1999. The original September 1999 rate uses methodology consistent with the rates for September 1994 – September 1998. The revised fiscal year 1999 rate is consistent with the rates for 2000 – 2001. We moved to reporting fiscal year rates beginning with the previous report in this series because the larger sample size results in smaller sampling errors for subgroup participation rates. The fiscal year 1999 rate also differs from the September 1999 rate because it is based on a revised March 2000 CPS file that was

reweighted based on Census 2000 and because of minor modeling changes for forming FSP units and identifying individuals with disabilities.

In addition to CPS-based analyses, estimates based on the SIPP can be used to measure participation rates. SIPP data contain more of the information needed to estimate eligibility for the FSP, and the methodology used to estimate eligibility with SIPP data more closely replicates the actual FSP eligibility determination process. However, the SIPP data series covers a shorter period than the CPS data series, and certain types of SIPP data needed to estimate eligible individuals are available only for a limited number of years. In addition, CPS data are consistently available on a more timely basis.

Historically, the trends identified through the CPS-based data have been consistent with those identified through SIPP-based data (Figure C.1). The change in methodology implemented in the August 1995 report shifted the CPS-based rates up, so that both the trend and the level of the CPS-based rates are more in line with the SIPP-based rates.

The levels of participation rates for some subgroups are still biased, however, due to under-reporting problems in the CPS. (These problems also exist in the SIPP.) Specifically, because public assistance is under-reported in the CPS, the participation rate for food stamp households with public assistance is too high. Typically, the number of households reporting TANF receipt in the March CPS is around 75 percent of the administrative totals. The number reporting SSI receipt is also around 75 percent of the administrative totals.

The remainder of this appendix describes the methodology used to calculate the participation rates.

A. DETERMINING FSP-ELIGIBLE INDIVIDUALS

We estimate the number of eligible individuals with a model that uses March CPS data to simulate the FSP in an average month of the previous fiscal year. Although the model does not

capture data specific to a particular month, it does impute monthly income for 12 individual (random) months.[19] We average the results from all 12 simulations to produce an average monthly estimate.[20] In the simulation procedure, FSP eligibility guidelines that were in effect in the previous fiscal year are applied to each household in the CPS.[21] The FSP guidelines include unit formation rules, asset limits, and income limits. Because several types of information needed to determine FSP eligibility are missing from the CPS data, we impute some information to improve the model estimates of the number of eligible households. This estimation procedure is explained below.

1. Simulating the Composition of the Food Stamp Unit

In the FSP, the food stamp unit is based on shared living quarters and who purchases and prepares food together. While the CPS defines the dwelling unit based on shared living quarters, it does not identify who purchases and prepares food together. As a result, we simulate the formation of food stamp units within each household. For most households, we simulate all household members to be in the same food stamp unit. For some households with certain compositions (e.g., multiple family households, households with unrelated individuals, etc.) we may simulate two or more groups of people to form separate food stamp units. The probability

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[19] In the CPS-based estimate of eligibles, we simulate the number of months (or weeks in the case of earnings) that households typically receive various types of income, but we do not know in which months the income is received.

[20] For 2001 and 2002, we run two sets of 12 simulations in order to capture the impact of vehicle rule changes during the fiscal year. The first set of simulations reflects vehicle rules in place near the beginning of the fiscal year and the second set reflects vehicle rules in place near the end of the fiscal year. We average the results to simulate using the earlier rules for the first six months of the year and the later rules for the second six months. See the section on determining asset eligibility later in this appendix for more information.

[21] Trippe et al (1992) includes a detailed discussion of our model of the FSP eligibility process.

that a household will form multiple units is based on observed rates for similar households from

FSPQC data. We also use the following rules in identifying food stamp units:

- We exclude SSI recipients who are not eligible for the FSP because they receive cash instead of food stamps in SSI cashout states (currently only California).[22]

- We exclude all individuals who are living in group quarters, are full-time students, or live in households headed by a member of the Armed Forces.

2. Identifying Eligible Noncitizens and Nondisabled Nonelderly Childless Adults Subject to Work Registration in the Post-Welfare Reform Era

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA)

made most noncitizens ineligible and required many nondisabled childless adults to work or face

time limits on benefit receipt. However, not all noncitizens and nondisabled childless adults

were made ineligible by welfare reform. Some noncitizens remained eligible through

exemptions, and some had their eligibility restored by the Agricultural Research, Extension and

Education Reform Act (AREERA) of 1998.[23] Likewise, some nondisabled nonelderly childless

adults retained their eligibility through exemptions or by meeting the work requirements. As a

result, our estimate of eligible individuals must include eligible noncitizens and nondisabled

nonelderly childless adults. Because the CPS does not track all of the information needed to

identify eligible noncitizens and nondisabled nonelderly childless adults, we make assumptions

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[22] Since SSI is under-reported in the CPS, we would exclude too few individuals in California, thus artificially increasing the number of eligible individuals and lowering the participation rate, if we used reported SSI. (In other states, the under-reporting may affect benefit levels, but is not as likely to affect the number of eligible individuals.) To obtain the most accurate number of eligible individuals as possible, we simulate SSI receipt in California for each year and exclude all simulated SSI recipients.

[23] The 2002 Farm Bill made numerous changes to the FSP, including restoring benefits to many legal immigrants. However, these changes took effect after the period covered in this report.

about how many and which of these individuals remain eligible. In order to retain sample size, we implement our eligibility assumptions for these populations through weighting adjustments.[24]

a. Identifying Refugees

Refugees are eligible for food stamps for seven years after they enter the United States. After seven years, refugees are subject to the same restrictions as legal resident aliens. The citizenship status tracked in the CPS only distinguishes between citizens and noncitizens, so we must impute a more detailed citizenship status. We use data from the Immigration and Naturalization Service to estimate the percent of noncitizens who are refugees by year of entry. Using these estimates in our 2002 eligibility determination, we assume 16 percent of noncitizens who entered the United States in 1996 or 1997, 17 percent who entered in 1998 or 1999, and 14 percent who entered in 2000, 2001, or 2002 are refugees and that other noncitizens are subject to the restrictions detailed below. We use a similar methodology to estimate the percent of noncitizens who are refugees for 1999 – 2001.

b. Identifying Eligible Noncitizens

Although most noncitizens are ineligible for the FSP, there are a number of exceptions. Specifically, the following populations had their eligibility restored by AREERA:

- children who are under age 18 and who were lawfully in the United States on August 22, 1996

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[24] The weighting adjustments reflect the probability that a household of a certain composition is eligible for food stamps. For example, if a household has one noncitizen, we duplicate the record for that household. In the first copy of the record, we retain the noncitizen and multiply the household weight by the probability that the noncitizen is eligible for food stamps. In the second copy of the record, we exclude the noncitizen and multiply the household weight by the probability that the noncitizen is ineligible. This methodology is used to implement the assumptions for refugees, other eligible noncitizens, and eligible nondisabled childless adults subject to work registration.

- elderly who were lawfully in the United States and at least 65 years old on August 22, 1996

- disabled individuals who were lawfully in the United States on August 22, 1996

The CPS file tells us when noncitizens arrived. We use this information to determine which children, elderly, and disabled noncitizens were in the United States on or prior to August 22, 1996, and thus had their eligibility restored by AREERA.

In addition, under PRWORA some noncitizens are eligible if they have 40 quarters of work history in the United States or are veterans of the Armed Forces. Because the work history and veteran status information in the CPS is insufficient for determining which individuals are eligible, we impute this information as well as legal status using 1997 Panel Study of Income Dynamics (PSID) data. Based on these data, we assume that 20 percent of remaining noncitizens (after exempting AREERA-eligible noncitizens and refugees who arrived after 1992) are legal noncitizens that meet the exemption criteria.[25]

The remaining noncitizens are assumed to be ineligible. We exclude them from the food stamp unit and assign an appropriate percentage of their income to the FSP unit as required by legislation before determining whether that unit is eligible.

c. Identifying Nondisabled Nonelderly Childless Adults Subject to Work Registration

Referred to as ABAWDs in past reports, these individuals are ages 18 to 49, not disabled, not living with children under age 18, and subject to work registration. With some exceptions, these individuals must meet work requirements to participate in the FSP. If they fail to meet the work requirements, they are limited to three months of benefit receipt in any 36-month period. They may be exempt from these requirements if they live in an area with high unemployment or

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[25] Because any legal resident alien who is the spouse or child of an exempt individual is also exempt, we apply these exemptions to all legal resident aliens in a qualifying household.

insufficient jobs (waiver area), participate in an employment and training program, or are covered by their state's 15 percent exemption.

We identify nondisabled nonelderly childless adults subject to work registration by looking at basic demographic characteristics in the CPS.[26] Because we cannot determine from the CPS which of these individuals remain eligible for the FSP, we impute this information.

d. Identifying Eligible Nondisabled Nonelderly Childless Adults

We estimate the proportion of nondisabled nonelderly childless adults who have not reached the time limit based on data from the SIPP.[27] We use federal and state administrative data to estimate the proportion of nondisabled nonelderly childless adults who are eligible due to the 15 percent exemption, participation in an employment and training program, or because they live in waiver areas. The target proportions for nondisabled nonelderly childless adults subject to work registration who are eligible for the FSP are available in the *Technical Appendices* to this report at www.fns.usda.gov/oane/MENU/Published/FSP/participation.htm.

3. Determining Income Eligibility

Food stamp units also must meet income limits in order to be eligible for benefits. Non-categorically eligible food stamp units that do not contain elderly or disabled members must have a gross income below 130 percent of the monthly poverty guidelines. There is no gross income limit for units that contain elderly or disabled members. In addition, all non-categorically eligible food stamp units must have a net income below 100 percent of the poverty guidelines.

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[26] The population of nondisabled nonelderly childless adults subject to work registration does include some eligible legal resident aliens.

[27] Specifically, we estimate the proportion that has received no more than three months of benefits while not working, using separate estimates for current participants and for non-participants.

Before determining each household's income eligibility, we estimate monthly income and household net income as follows:

- *Estimating Monthly Income.* The CPS database includes information on annual income, but eligibility for the FSP is determined according to monthly income. Therefore, we distribute annual income to months on the basis of patterns of income receipt shown by SIPP data and number of weeks worked shown in CPS data. We then sum the monthly income allocated to each month for each person in the household to determine each household's gross income for each month. Simply dividing annual income by 12 would underestimate the number of eligible individuals in any given month.

- *Estimating Net Income*. The CPS database does not include information on the expenses that are deducted from gross income to compute net income. Therefore, we model net income as a function of the household's earnings, unearned income, gross income, and geographic location for each year. This model is based on patterns observed in the FY 2002 FSPQC data. The estimated relationships (coefficients) are presented in the *Technical Appendices* to this report at www.fns.usda.gov/oane/ MENU/Published/FSP/participation.htm.

We use the food stamp gross and net income screens and the maximum benefit amounts to reflect regulations for each fiscal year.[28] We then determine income eligibility for each household based on these regulations.

4. Determining Asset Eligibility

A food stamp unit is eligible for FSP benefits if its countable assets are less than $2,000. If the unit contains an elderly person, the asset limit is $3,000.[29] Categorically eligible units, including pure public assistance units (units in which every member receives TANF, GA, or SSI) and other units that meet state categorical eligibility criteria, are automatically eligible for food

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[28] These parameters, along with other FSP eligibility criteria, are presented in Table C.2 for 2002 and the *Technical Appendices* to this report at www.fns.usda.gov/oane/MENU/ Published/FSP/participation.htm for 1976 to 2001. FSP guidelines for deductions from gross income in determining FSP net income are implicitly captured in the net income equation.

[29] In 2003, the asset limit for units containing a disabled person also was raised to $3,000.

stamps and are thus not affected by the asset test.[30] Since asset balances are not reported in the CPS database, we use equations estimated from our SIPP-based microsimulation model to impute the probability that income-eligible units subject to the asset test are asset-eligible and, therefore, fully eligible.

Expansions in FSP vehicle rules were gradually implemented across states throughout 2001 and 2002. Regulations implemented in January 2001 exclude from the asset test the value of vehicles with equity less than $1,500 and the value of vehicles used to produce income, used as a home, used to transport a disabled household member, or used to carry fuel or water. In addition, for each adult household member, one vehicle not totally excluded is exempt from the equity test and instead counted at the fair market value (FMV) in excess of $4,650. One additional vehicle per minor household member that is driven by the minor to work, school, or training is also counted at the vehicle's FMV in excess of $4,650.

Additional vehicle rule expansions began in July 2001, when states were permitted to align their FSP vehicle rules with rules in place for other programs, such as TANF or child care assistance. In response to this new flexibility, states gradually changed their vehicle rules over the 2001 and 2002 period.

For this report, we modeled the transition from the old to new vehicle rules by estimating asset imputation equations at three points in time. The first equation simulates FSP vehicle rules before the regulatory changes and is used to reflect the rules pertaining to 1999, 2000, and the

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[30] Because of data limitations, we currently underestimate the number of food stamp units that are exempt from the asset and income tests due to categorical eligibility. We likely underestimate the number of pure public assistance units due to underreporting of program participation, and we are unable to identify those who are categorically eligible for food stamps based on receipt of non-cash TANF benefits. We are examining approaches for overcoming these data limitations.

first half of 2001.[31] The second set of equations simulates vehicle rules in place in October 2001 and is used to reflect the rules pertaining to the second half of 2001 and the first half of 2002. The third set of equations simulates the vehicle rules in place in November 2002 and is used to reflect the rules pertaining to the second half of 2002.

The new equations differ from the equation used in Cunnyngham (2003) in several substantive ways. First, the new equations were estimated using the 1999 MATH SIPP model, a microsimulation model based on November 1999 data from the 1996 SIPP panel, while the previous asset imputation equation was estimated using the 1994 MATH SIPP model, which is based on January 1994 data from the 1992 and 1993 SIPP panels. In addition to being based on newer data, the 1999 MATH SIPP model is superior to the 1994 MATH SIPP because it more accurately reflects the use of wholesale rather retail vehicle values in FSP vehicle rules. Second, in order to fully capture state-level differences in vehicle rules in 2001 and 2002, we now estimate a separate equation for each of 15 different vehicle rules (e.g. we have one equation to use in states that exclude all vehicles, one to use in states that follow the federal rules, one to use in states that exclude one vehicle per adult, etc.) Previously, we used one equation and modeled only the federal vehicle rules. (We still use only one equation to model 1999, 2000, and the first part of 2001.) Finally, we made additional minor changes to the procedures for deriving the imputation equations.

The unweighted counts of households in the March CPS for 1976 – 2002 are listed in Table C.2. Unweighted counts of households by their probability of being eligible for 1999 – 2002 are listed in Table C.3.

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[31] The time period from January to June 2001 (after the initial regulatory changes were implemented but before states had the option of using TANF vehicle rules) is split between the first and second equations. We believe this simplification does not result in a loss of much precision.

B. DETERMINING THE NUMBER OF FSP PARTICIPANTS

The weighted number of participants for the participation rate comes from the FSP Statistical Summary of Operations (Program Operations) data. This database provides counts of individuals and households that were issued benefits and the total dollar value of these benefits in each month. We use this database because FSP participation is under-reported in the CPS data. For the participation rate numerators, we use the average monthly number of participants over the 12 months in the fiscal year (October 1 through September 30). We distribute the total number of individuals, households, and benefits across subgroups of the population according to the distribution in the sample of food stamp case records in the FSPQC data. To do this, we first subtract the number of participants in Guam and the Virgin Islands from the Program Operations number of total participants, as well as the number receiving disaster assistance.[32] We then adjust the resulting Program Operations total by the percent of total participants that are ineligible based on QC error rates provided by FNS. Finally, we divide the adjusted Program Operations total by the number of participants in the FSPQC to get a final adjustment ratio (Table C.4). The same procedure is followed for households and benefits. We multiply each of the subgroup estimates of participants by the appropriate adjustment ratio. The sample sizes of participating households in the FSPQC datafiles are listed in Table C.5.

1. Identifying Individuals in Households with Earnings

We also make adjustments to the FSPQC data to better identify individuals in households with earnings.[33] For this we examine the unedited Quality Control data, looking for multiple

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[32] We subtract the number of participants in Guam and the Virgin Islands because the CPS does not collect data on residents of these territories. We subtract the number of participants receiving disaster assistance because we are unable to simulate their eligibility.

[33] We focus on adjusting individuals in households with earnings to be consistent with related reports that focus solely on households with earnings.

indicators of earnings, such as reported earnings and a reported earnings deduction, or reported earnings deduction and presence of an employed person. Using the unedited data allows us to identify earnings that may not be included as countable income (or income included in the benefit determination) and to compensate for missing data that may bias the earnings indicator in the edited file for certain states.

C. CALCULATING FSP PARTICIPATION RATES

We estimate aggregate participation rates by dividing the number of participants recorded in the adjusted Program Operations data by the number of eligible individuals simulated on the basis of CPS data. The numbers of participants and eligible individuals used to calculate participation rates are presented in Appendix A for 2002, and for 1999 – 2001, in the *Technical Appendices* to this report at www.fns.usda.gov/oane/MENU/Published/FSP/participation.htm.

FIGURE C.1

TRENDS IN INDIVIDUAL PARTICIPATION RATES BY DATA SOURCE, 1984-2002
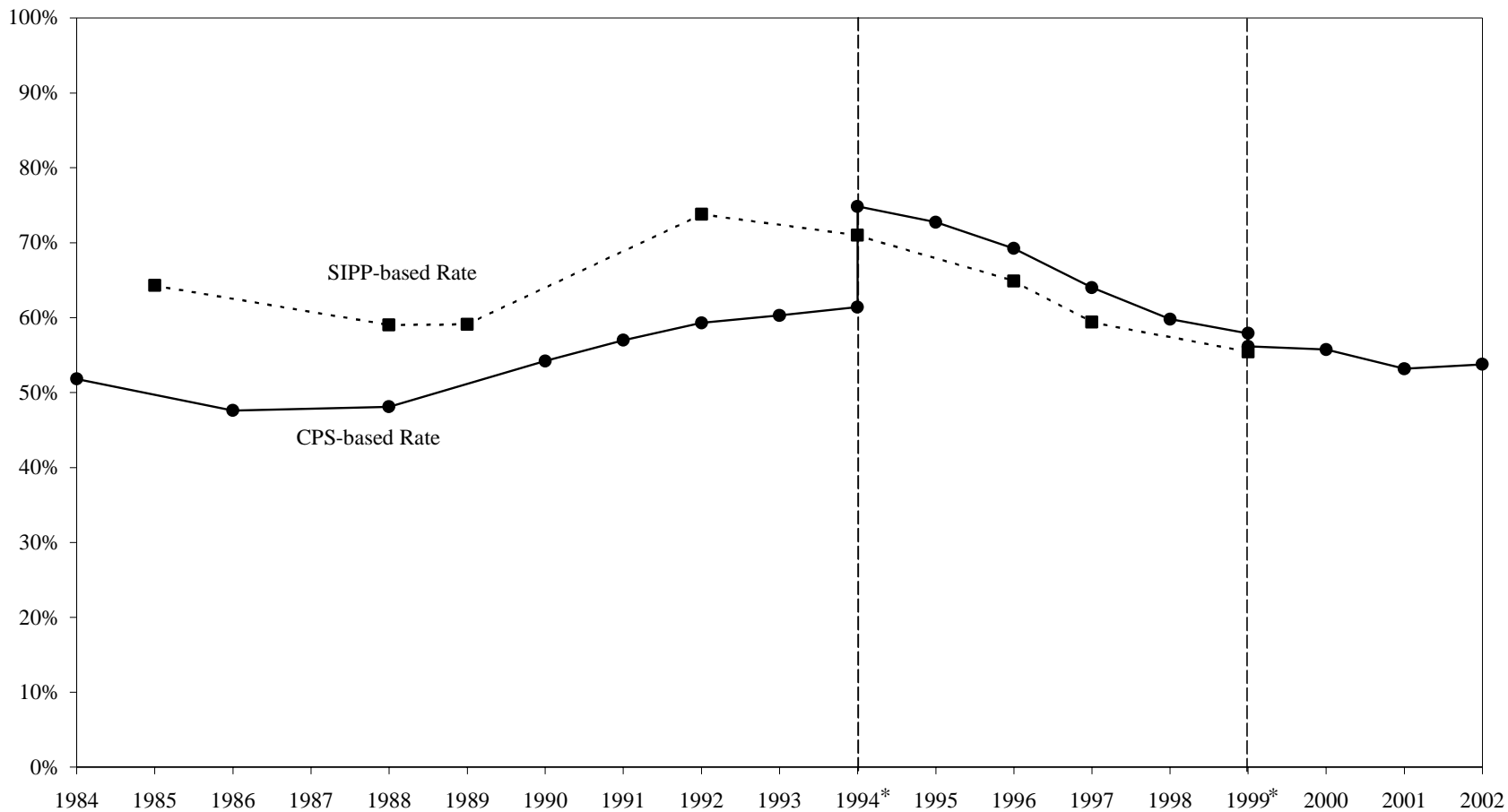
Source: FSP Program Operations data, FSPQC data, SIPP data, and March CPS data for the years shown.

*There are breaks in the time series in 1994 and 1999 due to revisions in the methodology for determining eligibility.

TABLE C.1

FISCAL YEAR 2002 FSP ELIGIBILITY PARAMETERS

Countable Assets Screen	$2,000 for households without elderly members		
	$3,000 for households with elderly members		

Gross Income Screen	130 percent of the 2001 DHHS Poverty Guidelines

Net Income Screen	100 percent of the 2001 DHHS Poverty Guidelines

Monthly Poverty Guidelines	Unit Size	Continental US	Alaska	Hawaii
	1	$ 716	$ 895	$ 825
	2	968	1,210	1,114
	3	1,220	1,525	1,403
	4	1,471	1,840	1,692
	5	1,723	2,155	1,981
	6	1,975	2,470	2,270
	7	2,226	2,785	2,560
	8	2,478	3,100	2,849
	Each Additional	+ 252	+ 315	+ 290

Standard Deduction		Continental US	Alaska	Hawaii
		$134	$229	$189

Maximum Dependent Care Deduction	$200 for dependents under age 2, $175 for dependents age 2 and over

Excess Shelter Deduction		Continental US	Alaska	Hawaii
		$354	$566	$477

Benefit Calculation	Benefit = Maximum benefit – 30 percent of Net Income

Maximum Monthly Benefit	Unit Size	Continental US	Alaska	Hawaii
	1	$135	$167	$204
	2	248	307	374
	3	356	440	536
	4	452	559	680
	5	537	663	808
	6	644	796	970
	7	712	880	1,072
	8	814	1,006	1,225
	Each Additional	+ 102	+ 126	+ 153

Minimum Monthly Benefit	Unit Size	
	1 - 2	$10
	3+	$ 0

Categorically Eligible	Receipt of cash or in-kind TANF benefits, SSI, or GA

SSI Cashout States	California only

Note: Eligibility parameters are for the 50 states and the District of Columbia. Puerto Rico is excluded from data for 1976 and 1978 in order to be consistent with other years, and Guam and the Virgin Islands are excluded for all years.

TABLE C.2

UNWEIGHTED SAMPLE SIZES FOR THE CPS, 1976 - 2002

Analysis Year	All Households
1976	68,294
1978	68,455
1980	81,451
1982	73,195
1984	74,568
1986	73,843
1988	70,454
1990	75,076
1991	74,236
1992	73,878
1993	73,126
1994	72,152
1995	63,339
1996	64,046
1997	64,659
1998	65,377
1999	64,944
2000	78,054
2001	78,265
2002	78,310

TABLE C.3

UNWEIGHTED COUNTS OF HOUSEHOLDS BY THE
PROBABILITY OF BEING ELIGIBLE, 1999 – 2002

| | Analysis Year | | | |
	1999	2000	2001	2002
All Households	64,944	78,054	78,265	78,310
Households with a Probability of Being Eligible Greater Than Zero				
Total	10,173	14,741	15,113	15,883
Probability of Being Eligible				
>0.0 - 0.25	1,074	1,533	1,509	1,269
>0.25 - 0.50	1,103	1,614	1,716	1,221
>0.50 - 0.75	3,548	4,818	5,071	4,474
>0.75 - <1.00	3,087	4,756	4,817	6,971
1.00	1,361	2,020	2,000	1,948

Note: Estimates in this table reflect the number of CPS households in which at least one unit has a non-zero probability of being eligible for food stamps. We determine the probability that a unit is eligible by calculating whether it passes the appropriate income tests and estimating the probability of passing the asset test. The final probability of being eligible is multiplied by the weight to determine the unit's contribution to the total (weighted) number of eligible units. In households with multiple food stamp units, the probabilities of each unit are combined into one household probability. The data shown in each column reflect the number of households in the month with the median number of households with a positive probability of being eligible.

TABLE C.4

FSPQC ADJUSTMENT RATIOS

	Individual	Unit	Benefit
2002			
Program Operations: Adjusted Total[a]	19,058,112	8,182,957	1,512,198,290
FSPQC: Total	18,988,511	8,182,968	1,413,598,488
Error Rate[b]	0.02110	0.01952	0.04060
Final Adjustment Ratio[c]	0.98248	0.98048	1.02632
2001			
Program Operations: Adjusted Total[a]	17,266,522	7,434,793	1,294,704,301
FSPQC: Total	17,252,470	7,434,788	1,209,220,193
Error Rate[b]	0.02137	0.02015	0.04280
Final Adjustment Ratio[c]	0.98065	0.97863	1.02487
2000			
Program Operations: Adjusted Total[a]	17,116,792	7,319,374	1,243,293,682
FSPQC: Total	17,046,670	7,319,377	1,153,940,577
Error Rate[b]	0.02405	0.02224	0.04110
Final Adjustment Ratio[c]	0.97997	0.97776	1.03315
1999			
Program Operations: Adjusted Total[a]	18,134,485	7,652,410	1,305,904,769
FSPQC: Total	18,099,607	7,652,410	1,235,927,597
Error Rate[b]	0.02339	0.02043	0.04168
Final Adjustment Ratio[c]	0.97849	0.97957	1.01258

[a] The Program Operations adjusted total is the total number of participants in the FSP minus participants in Guam and the Virgin Islands and participants receiving food stamps for disasters.

[b] The Error Rate is the percentage of participating individuals and units found to be ineligible and the percentage of benefits issued in error based on information provided by FNS.

[c] For each subgroup, the number of participants in the FSPQC is multiplied by the Final Adjustment Ratio to calculate the final estimate of participants used in the numerator of the participation rate.

TABLE C.5

UNWEIGHTED SAMPLE SIZES FOR THE FSPQC CASE RECORDS

Month/Year	FSPQC Case Records
September 1976	11,038
February 1978	14,211
August 1980	4,140
August 1982	7,224
August 1984	6,918
July/August 1986	11,010
July/August 1988	10,695
July/August 1990	10,639
July/August 1991	10,602
July/August 1992	9,586
July/August 1993	9,389
August/September 1994	8,933
August/September 1995	8,313
August/September 1996	8,304
August/September 1997	7,907
August/September 1998	7,336
August/September 1999	7,558
Fiscal Year 1999	46,935
Fiscal Year 2000	46,336
Fiscal Year 2001	46,412
Fiscal Year 2002	47,602