



United States  
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Agriculture

Food and  
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**Current Perspectives on Food Stamp Program Participation**

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# **Food Stamp Program Participation Rates: January 1989**

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**Carole Trippe and Pat Doyle**

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## EXECUTIVE SUMMARY

Policymakers are concerned about the extent to which the Food Stamp Program (FSP) serves its target population, as well as about which subgroups of the target population are more or less likely to participate in the program. This report is the fourth in a series of reports that provides estimates of rates of participation in the FSP, both among the total eligible population and among selected subgroups of that population. This report presents participation rates for January 1989, and compares these rates with the August 1985 and January 1988 rates that were presented in two previous reports in the series.<sup>1</sup> The participation rates for all three years were derived with a consistent data base and methodology. Specifically, all three rates were derived from administrative counts of participants for the numerator and from Survey of Income and Program Participation (SIPP)-based estimates of eligibles for the denominator.

The FSP participation rate is the ratio of the number of persons (or households) who participate in the FSP (or the actual benefits paid to participants) to the number of persons (or households) who are eligible for the program (or the total benefits payable if all eligible households participated). The estimates presented in this paper indicate that in the 50 states and the District of Columbia in January 1989--

- 59 percent of the eligible individuals participated in the FSP.
- 56 percent of the eligible households participated in the program.
- Participating households received 66 percent of the benefits payable had all eligible households participated.

## METHODOLOGICAL ISSUES

A major difficulty in estimating FSP participation rates stems from the difficulty in estimating the denominator of the rate: program eligibility cannot be observed and therefore must be approximated using household survey data. No such survey captures all the characteristics and other data necessary to replicate the food stamp eligibility and benefit determination process exactly. Underreporting of income is also common to all household surveys, including SIPP. (A complete description of the limitations of survey data is found in the appendix.) However, SIPP allows a better approximation of FSP eligibility criteria than surveys like the March Current Population Survey that measure income on an annual basis and do not measure all determinants of program eligibility. SIPP contains, for example, detailed monthly data on income and household composition supplemented with measures of assets and expenses--all variables used in the actual calculations of FSP eligibility. Furthermore, more recent SIPP data support better estimates of program eligibility than earlier SIPP data because

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<sup>1</sup>This report compares the January 1989 participation rates with the participation rates for August 1985 (Doyle, 1990) and January 1988 (Trippe and Doyle, 1992). A third report provides estimates of participation rates for August 1984 (Doyle and Beebout, 1988); however, because the estimation procedures have been improved substantially over those that yielded the 1984 rates, the 1984 participation rates are not included in the comparisons.

of the continued improvement in the SIPP questionnaire. Specifically, the January 1989 estimates in this report are derived from a new SIPP survey designed specifically to measure eligibility for needs-tested programs. None of the earlier estimates of FSP participation rates take advantage of the newly integrated survey design.

A second source of difficulty in estimating participation rates is the underreporting of program participation in surveys used to measure program eligibility. Because of the underreporting, we cannot derive unbiased estimates of both the numerator and denominator of the participation rate ratios from the same data source. Therefore, this report uses FSP administrative data on beneficiaries and benefits paid in January 1989, producing accurate measures of the number of participants for the numerator of the participation rates.

### **COMPARISON OF PARTICIPATION RATES FOR 1985, 1988, AND 1989**

Participation rates change when the rate of growth in the number of participants differs from the rate of growth in the number of eligibles. Changes in FSP legislation, economic conditions, and other programs can affect the rate of growth among participants and eligibles, thus changing participation rates. Since these influences often occur simultaneously, it is difficult to sort out their separate effects on participation rates. Usually, one of the influences dominates the others, causing participation rates to change in a particular direction.

The following table shows that FSP participation rates stabilized at about 59 percent among eligible persons between 1988 and 1989 after declining by about 5 percentage points between 1985 and 1988. Participation rates remained steady between January 1988 and January 1989 largely because there were no significant program changes. The number of participants and eligibles grew slightly, but at about the same rate. Despite the growing economy nationally during this period, there were pockets of recession around the country that may have increased the number of participants and eligibles in some areas. Furthermore, expansions in Medicaid may have slightly increased the number of participating households.

Participation rates declined between 1985 and 1988 because the number of eligibles increased substantially, while the number of participants remained constant. The expansion in the number of eligibles was due largely to the more generous eligibility criteria granted under the 1985 Food Security Act (FSA). However, there was little or no change in the number of participants because only 6 percent of those households that were made eligible under the FSA joined the program. The lack of participation among the newly eligible under the FSA is not so surprising given the historically lower-than-average participation rates for the groups most affected by the new eligibility provisions of the FSA (that is, households with single and elderly persons), the growing economy between 1985 and 1988, and the relatively subtle nature of the expansions.

## COMPARISON OF PARTICIPATION RATES FOR 1985, 1988, AND 1989

	Participation Rates (Percent)		
	August 1985	January 1988	January 1989
Individuals	64.3	59.0	59.1
Households	59.4	56.0	55.5
Benefits	75.3	66.7	66.0

The table shows that in all three years the benefit participation rate was substantially higher than both the individual participation rate and the household rate, and that the individual rate was higher than the household rate. This consistent pattern indicates that households with higher benefit levels, and thus greater need, are more likely to participate than households with lower benefit levels. It also implies that larger households are more likely to participate than smaller households.

### Changes in Participation Since 1989

FSP caseload data show that the number of FSP participants climbed steadily since spring 1989. Over 6 and a half million more persons were receiving food stamps in December 1991 than in January 1989. Factors such as the worsening economy suggest that the number of eligible persons has also risen since 1989. However, we cannot estimate by how much the number of eligibles, and thus participation rates, increased since 1989 until the SIPP survey data for this time period are available. The relevant SIPP data for 1991 should be available by mid-1993. If the surge in participants is coming from the pool of nonparticipating eligibles, or grows at a faster rate than the eligible population, then FSP participation rates will rise after January 1989.

### ESTIMATES OF PARTICIPATION RATES BY SELECTED DEMOGRAPHIC CHARACTERISTICS

The following are highlights of the January 1989 participation-rate estimates across selected demographic groups:

- Eligible children participated in the FSP at higher-than-average rates. For example, 73 percent of eligible preschool children and 66 percent of eligible school children resided in households that participated in the FSP.
- Conversely, the participation rate for elderly persons was much lower than average (29 percent). The rate was higher among elderly who lived alone (32 percent) than among those who lived with others (24 percent).
- Among the disabled, 57 percent of the eligible individuals and eligible households participated, and those who lived alone participated at much higher rates (90 percent) than those who lived with others (44 percent).

- Participation rates for households headed by a single woman with children were much higher than average (78 percent).
- Households headed by black, non-Hispanic individuals participated at a much higher rate (77 percent) than households headed by white, non-Hispanic individuals (46 percent) or Hispanic individuals (51 percent).

## ESTIMATES OF PARTICIPATION RATES BY SELECTED ECONOMIC CHARACTERISTICS

The following are highlights of the January 1989 participation-rate estimates across selected economic groups:

- Participation rates increased as potential benefits rose. Households eligible for the smallest benefits participate at the lowest rate (32 percent). Rates increased as potential benefits increased, reaching 83 percent for households eligible for benefits of 76 percent to 99 percent of the maximum.
- Participation rates were much higher among persons in households whose income was below the poverty level (74 percent) than for persons in households whose income was above the poverty level (17 percent). The same was true for households below and above poverty (72 percent and 14 percent respectively) and for benefits issued to households below and above poverty (72 percent and 16 percent respectively). Participation rates generally declined as income rose.
- Households with earnings participated at a lower-than-average rate (32 percent), whereas households that received SSI or public assistance participated at higher-than-average rates (67 and 121 percent, respectively).<sup>2</sup>

## THE CHARACTERISTICS OF ELIGIBLE NONPARTICIPANTS

Approximately 5.7 million of the 12.7 million households eligible for food stamps did not participate in the program. These 5.7 million households comprised 12.7 million persons eligible for \$478 million in benefits in January 1989. More than half (56 percent) of the eligible nonparticipants had income above the poverty line; 39 percent were eligible for a relatively small monthly benefit (1 to 25 percent of the maximum allotment). Overall, more than half of the nonparticipants (56 percent) were households with elderly persons and about 45 percent were households with workers, with about equal numbers falling above and below the poverty line in both groups. Elderly nonparticipating households tended to consist of a single individual, while nonelderly nonparticipating households tended to consist of wage earners below poverty with children. Most of the persons in eligible nonparticipating households with above-poverty income were eligible for small monthly

## I. INTRODUCTION

The Food Stamp Program (FSP) provides assistance to low-income households to help them buy the food they need to obtain a nutritious diet. A food stamp household is generally defined as a person who lives alone, or as a group of persons who live together and share food purchases and meal preparation and whose monthly income and assets fall below specified limits. The assistance is provided in the form of coupons that can be redeemed for food purchases. The amount of the coupons is based on the size and income of the household.

Not all households eligible for food stamps participate in the program. The literature on the program suggests a variety of reasons for nonparticipation (Allin and Beebout, 1989). Some persons may be unaware of the program, while others may presume that they are not eligible for benefits. Other persons may be aware of the program and their own eligibility for it, but feel that the benefits are not worth the effort required to obtain and use them. Still others may not participate due to the stigma they associate with using food stamps.

Obviously, since some eligible households do not apply for benefits, FSP benefits are not being used by the entire population targeted by the legislation that established the program. Indeed, according to conceptual models of the decision to participate in the program, participation should not be expected to be universal (see Allin and Beebout, 1989). But even if participation will never be universal, the Congress and other policymakers are interested in the proportion and characteristics of the eligible population that does participate in the program. They are also interested in the subgroups of the target population that are most likely to participate in the program, as well as in the characteristics of persons who are eligible for but do not participate in the program.

This paper is the ninth in a series that has examined current issues on FSP participation. It is the fourth that provides estimates of rates of participation in the FSP, both among the total eligible population and among selected subgroups of that population that are of particular interest to

policymakers.<sup>1</sup> The estimates reported in this series are more comprehensive and accurate than most previous estimates. Previous estimates of FSP participation have varied widely due to differences in methodologies and data sources, and inadequacies with the data sources.<sup>2</sup>

The participation-rate estimates in this series of papers are more accurate than most previous ones, primarily because the estimates of eligibles on which they are based are derived from data in the Survey of Income and Program Participation (SIPP). Because eligibility for the FSP cannot be observed directly, the denominator of the participation rate (the total number of program eligibles or total potential benefits) must be approximated with household survey data. Relative to the household surveys used in previous research, such as the Current Population Survey (CPS), SIPP contains a greater amount of and more detailed information on the household characteristics that FSP administrators must consider when making actual eligibility determinations.<sup>3</sup> For example, SIPP contains information on monthly (as opposed to annual) income, monthly household composition, expenses used to calculate deductions from income, and vehicular assets, thereby significantly advancing our ability to approximate eligibility status with survey data.

Data for the numerator of the overall participation rate (the number of program participants or total benefits paid) were derived from the Food Stamp Program Statistical Summary of Operations (hereafter referred to as Program Operations data) and were adjusted to account for benefits issued in error in January 1989.<sup>4</sup> These administrative data are more accurate than the self-reported survey data used in some previous studies of FSP participation, because research indicates that food stamp

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<sup>1</sup>The first three papers provided estimates of participation rates for August 1984 (Doyle and Beebout, 1988), August 1985 (Doyle, 1990) and January 1988 (Trippe and Doyle, 1992). Due to the substantial methodological improvements made to the estimation procedures since the August 1984 rates, only the August 1985, January 1988, and January 1989 rates are strictly comparable.

<sup>2</sup>Trippe (1989) reviews the literature on FSP participation rates and estimation techniques.

<sup>3</sup>The exception is the 1979 Income Survey Development Program (ISDP) Research Test Panel, the precursor to SIPP.

<sup>4</sup>The Food Stamp Program Statistical Summary of Operations is a monthly record of benefits issued and the caseload served by the Food Stamp Program.

receipt is substantially underreported in household survey data. Because the numerators of the ratios reported herein are based on administrative counts, they are more reliable estimates of the number of actual participants and the amount of benefits paid. However, because Program Operations data do not contain information on subgroups of the participating population, we calculated estimates for these groups from a sample of food stamp case records from the Integrated Quality Control System (IQCS) of the U.S. Department of Agriculture.<sup>5</sup>

Although our SIPP-based estimates represent an improvement over previous results, they are not without their own sampling and measurement limitations. In particular, the underreporting of public assistance income and receipt that is common to all household surveys yields unrealistic estimates of food stamp participation rates among public assistance households. Furthermore, the survey does not provide all of the information necessary for a precise determination of the food-stamp-eligible unit in all households. Finally, a number of persons who reported SSI receipt in SIPP appeared to be ineligible for SSI due to high income or assets, potentially distorting the estimate of pure SSI households who are automatically eligible for the FSP. As discussed in the appendix, these sampling and measurement limitations have mixed effects on the estimates of program eligibles and hence the net result on estimates of participation rates is uncertain. In short, although this analysis represents a considerable improvement over most previous efforts, perfect statistics on the FSP-eligible population or on subgroups that participate in the program are unattainable. Further research can reduce, but not eliminate, the uncertainties in estimation.

The remainder of this report is organized as follows. Chapter II summarizes the methodology and data used to estimate participation rates. Chapter III presents the overall participation rates for January 1989, the rates disaggregated by selected demographic and economic characteristics, and the characteristics of those eligibles who did not participate. Chapter IV compares the January 1989

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<sup>5</sup>The IQCS is a system of ongoing case record reviews that measure payment error rates in the Food Stamp, Aid to Families with Dependent Children (AFDC), and Medicaid programs. The IQCS is based on monthly probability samples drawn from all 50 states and the District of Columbia; our study uses active cases in the January/February 1989 samples.

participation rates with the August 1985 and January 1988 participation rates provided in Doyle (1990) and Trippe and Doyle (1992), respectively. The Appendix describes the technical procedures used to compute the 1989 participation rates.

## II. METHODOLOGY AND DATA

This section describes our methodology for constructing the January 1989 FSP participation rates. Three rates are introduced and defined, followed by a discussion of how they were computed. The latter discussion also describes the criteria that FSP administrators use to make eligibility and benefit determinations, as well as the model of those criteria that we used to estimate the number of eligibles with SIPP data.

### A. THREE ALTERNATIVE MEASURES OF FSP PARTICIPATION

No single measure of participation can adequately answer all the questions that policymakers have about FSP participation. The three measures discussed in the literature--the individual rate, the household rate, and the benefit rate--differ in terms of their magnitude and their advantages and limitations for answering a given question. Here, we define each measure, specify its potential usefulness, and explain its application in previous studies.

#### 1. The Individual Participation Rate

The individual participation rate is a ratio of the number of persons participating in the FSP to the number of persons eligible for the program. Policy discussions about FSP participation rates often rely on research results based on the individual rate, whereas discussions about participation behavior usually rely on a model of the household as the decision-making unit. In some instances, the individual rate may be preferable to the household rate, especially for answering questions about the participation of a particular subgroup of the target population. For example, the proportion of eligible elderly individuals who participate in the FSP is a better indication of the behavioral patterns of the elderly than is the proportion of eligible households that contain an elderly member who participates.

## **2. The Household Participation Rate**

The household participation rate is the ratio of the number of food stamp units, or households, that participate in the program to the number of households eligible for the program. As just noted, analyses of participation behavior tend to rely on this rate because they assume that the household is the decision-making unit. The definition of the household as the decision-making unit is derived from program rules that determine eligibility and benefits for households, not for individuals. The household rate can differ significantly from the individual rate because larger households are more likely than one-person households to participate in the FSP.

## **3. The Benefit Rate**

The benefit rate is the ratio of the benefits paid to program participants to the total potential benefits payable if all program eligibles participated. Although it has not been used extensively in previous research, the benefit rate may be the best overall measure of how well the FSP is meeting the target population's need for assistance. The benefit-rate estimates reported herein are generally higher than the individual- and household-rate estimates, indicating that households with higher benefit levels, and thus greater need, are more likely to participate than are households with lower benefit levels.

## **B. ESTIMATION OF PARTICIPATION RATES**

We used administrative data derived from three sources to estimate the numerators in the participation-rate ratios (as described in the Appendix). The first source is the Program Operations data, which provided the number of persons and households that were issued benefits in January 1989 and the total dollar value of the coupons issued. Second, we used information provided by the Food and Nutrition Service based on the IQCS to eliminate ineligible participants and erroneous benefits from the Program Operations data because these ineligible participants and their benefit levels cannot be captured in the SIPP-based estimates of eligibles. Third, we used information derived from a

sample of case records active in January and February 1989 to distribute the adjusted total number of participating households and persons and their benefits across various demographic and economic characteristics.<sup>1</sup>

We used the procedures outlined in the Appendix to develop estimates of the denominators of the participation-rate ratios from SIPP. In essence, a model of the food stamp eligibility criteria determined which SIPP respondents belonged in the sample of program eligibles. This model relied on a simulation procedure whereby we quantified program rules and applied them to each dwelling unit in the January 1989 SIPP sample. For units determined to be eligible via this simulation, we estimated their composition and potential benefits. Below, we summarize the criteria that program administrators use to determine eligibility and benefits, and that we simulate to the extent that the SIPP data permit.

Eligibility for the FSP is based on a series of rules that define the applicant's need, which is deemed to be a function of available cash income conditional on unit (household) size, as well as the assets accessible to the unit.<sup>2</sup> The determination of need for each household that applies for FSP benefits can be disaggregated into four distinct components: (1) income limits, (2) asset limits, (3) nonfinancial standards, and (4) benefit levels. The parameters of each of these components vary over time with cost-of-living adjustments and legislative changes to the program. This analysis relies on the FSP criteria in existence in January 1989, the month corresponding to the administrative and SIPP data used.

The income test comprises two parts: a net income screen and a gross income screen. Under the net income screen, the monthly gross income net of allowable expenses must fall below the

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<sup>1</sup>This sample of cases was developed in the process of preparing an annual report on the characteristics of food stamp households (U.S. Department of Agriculture, 1991).

<sup>2</sup>The discussion that follows is an overview of the regulations that govern FSP eligibility and benefits. The complete regulations appear in the *Code of Federal Regulations* (7 CFR, parts 270-273).

monthly federal poverty guidelines, which vary by household size and geographic location.<sup>3</sup> Under the gross income screen, food stamp units that do not contain elderly or disabled members must also have gross income below 130 percent of the same poverty guidelines. In January 1989, the program measured gross income as all cash income received by members of the food stamp household excluding the earnings of students under age 18, loans, nonrecurring lump-sum payments, and reimbursements for certain expenses. Net income was defined as gross income less a standard deduction, an earnings deduction, and deductions for expenses incurred for child care, medical, and excess shelter costs.<sup>4</sup>

Two different asset limits are imposed. In 1989, a food stamp household could have countable assets (or "resources," as they are called in the administration of the program) of \$2,000 or less and remain eligible for benefits. If the household contained an elderly person, the asset limit was \$3,000. Selected pieces of property, such as the principal home, adjacent land, most household goods, and vehicles necessary for producing income or for transporting disabled individuals, are not considered countable resources, but all other financial and nonfinancial assets are generally included. In most instances, assets are counted at their equity value as long as they are accessible to at least one member of the food stamp household. The principal exception is the treatment of vehicular assets.<sup>5</sup>

Nonfinancial eligibility standards include the definition of the program unit and the characteristics of the unit (such as the presence of an elderly member) that affect eligibility. In general, food stamp

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<sup>3</sup>The income limits are based on the official monthly poverty guidelines published by the U.S. Department of Health and Human Services (DHHS), which are adjusted each year to account for inflation. The income guidelines and other FSP parameters are generally the same for the 48 contiguous states and the District of Columbia and vary slightly for Alaska and Hawaii and the territories.

<sup>4</sup>The medical deduction is allowed only for medical expenses incurred by elderly or disabled members of the household.

<sup>5</sup>Vehicles required for work-related travel, and one additional vehicle owned by members of the food stamp household, are valued at the current Blue Book value, and only the amount that exceeds \$4,500 is considered to be an available resource. Any remaining vehicles owned by members of the household are subject to both a market-value test and an equity test. The maximum of market value less \$4,500, and the equity is counted towards the household's assets.

benefits are issued to "households," but aspects of the program unit definition distinguish the term from the Bureau of the Census' designation--namely, a group of individuals who share living quarters.<sup>6</sup> The food stamp household consists of a person who lives alone, or persons who live together and share food purchases and meal preparation, with some exceptions for households that contain elderly individuals who are unable to prepare their own meals. Restrictions are imposed on the food stamp household to prevent spouses, siblings, and parents with children under age 18 from forming separate units within a dwelling unit even if they purchase and prepare meals separately.<sup>7</sup> Furthermore, selected individuals within a dwelling unit are excluded from FSP participation. They include illegal aliens, persons who refuse to comply with work registration requirements, strikers, and residents of most institutions. The FSP also contains several provisions that require able-bodied adults to work, seek training in preparation for work, or look for work. Individuals not exempt from these work registration requirements are prohibited from participating in the program if they refuse to comply. Finally, food stamp households consisting entirely of persons participating in the SSI or AFDC programs are automatically eligible for food stamps, regardless of their income and asset holdings.

Households deemed eligible according to these criteria receive benefits that are computed as the difference between the maximum food stamp benefit for their household size and geographic location and 30 percent of their net monthly income.<sup>8</sup> In January 1989, the maximum food stamp benefit in the continental United States was \$300 for a family of four. Households consisting of only one

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<sup>6</sup>Groups of individuals who share living quarters are referred to as "dwelling units" or "Census households." The latter term is significant in this analysis because the dwelling unit is commonly the interview unit used by the Census Bureau to collect survey data on the U.S. population. Specifically, as noted in the "Introduction," the dwelling unit is the interview unit for SIPP.

<sup>7</sup>The Stewart B. McKinney Homeless Assistance Act (P.L. 100-77) relaxed these restrictions for certain households. This Act grants separate household status to parents of minor children who live with siblings or parents (the grandparents of children) if they purchase and prepare food separately.

<sup>8</sup>The maximum food stamp benefit in 1989 was equal to 100.65 percent of the Thrifty Food Plan for the preceding June for a family of four, adjusted for the size of the unit according to economies of scale.

or two people whose benefit computation is less than \$10 in coupon value are issued a minimum benefit of \$10.

The January 1989 SIPP data contain more of the information needed to determine FSP eligibility than ever before. This is because the January 1989 SIPP data contain, for the first time, a set of specially-designed questions *focused* on determining program eligibility. The newly designed "eligibility module" represents an improvement over previous SIPP data because (1) it contains most of the information that was omitted in previous SIPP files that is needed to estimate eligibility; and (2) almost all of the eligibility information is collected simultaneously for the same group of persons, and thus does not have to be integrated across time. The Appendix discusses the SIPP eligibility module in more detail.

### III. RESULTS

Over 7 million households in the 50 states and the District of Columbia participated in the Food Stamp Program in January 1989 (Table III.1). Based on the estimates prepared from SIPP, 12.7 million households were eligible for the program in that same month. Thus, the overall household participation rate was 56 percent. The overall individual rate was higher: 18.3 million individuals of 31.0 million eligible individuals, or 59 percent, participated in the FSP.

The Food Stamp Program issued \$927 million in benefits in January 1989, which is 66 percent of the benefits to which eligible households were entitled. This percentage is consistent with the finding (shown later) that households entitled to higher benefits participated at higher rates than those entitled to lower benefits.

The fact that the benefit rate was higher than the individual rate, which in turn was higher than the household rate, implies that, among other factors, both the size of the household and its potential benefit influence the decision to participate. The influence of household size and other demographic characteristics on the tendency to apply for benefits is outlined in Section A; the influence of potential benefits and other economic characteristics is discussed in Section B. Section C discusses the characteristics of eligible households that did not participate in the FSP in January 1989.

#### A. PARTICIPATION RATES BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Table III.2 presents household participation rates disaggregated by the size of the eligible household. Most eligible households were relatively small, as were most participating households. Yet the participation rate tended to be higher for larger households, with single-person households participating at a rate that was 26 percentage points lower than three-person households in January 1989. Participation rates peak for households that contain three persons, and decline with household

TABLE III.1

INDIVIDUAL, HOUSEHOLD, AND BENEFIT  
PARTICIPATION RATES: JANUARY 1989

	Participants	Eligibles	Participation Rate
Individuals (in Thousands)	18,344	31,041	59.1 %
Households (in Thousands)	7,037	12,689	55.5
Benefits (in Thousands)	\$927,391	\$1,405,636	66.0
Average Household Size	2.6	2.5	
Average per-Capita Benefit	\$50.6	\$45.3	

SOURCES: Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants and benefits issued in error. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

TABLE III.2

HOUSEHOLD PARTICIPATION RATES BY  
HOUSEHOLD SIZE: JANUARY 1989

Household Size (number of persons)	Number of Participating Households (in Thousands)	Number of Eligible Households (in Thousands)	Household Participation Rate
1	2,298	5,144	44.7 %
2	1,591	2,660	59.8
3	1,336	1,901	70.3
4	937	1,361	68.8
5	486	834	58.2
6+	388	788	49.3
Total	7,037	12,689	55.5

SOURCES: Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

sizes of more than three persons. Nonetheless, rates for all household sizes of more than three persons are higher than the rates for single-person households.

Table III.3 presents individual participation rates disaggregated by selected demographic characteristics. The table shows that the FSP was serving a large majority of children in eligible households in January 1989. Almost three-fourths of eligible preschool children (that is, children under age 5) resided in households that participated in the program. Among school-age children, this rate was 66 percent. Among all eligibles, females participated at a slightly higher rate than males (60 percent versus 57 percent).

The participation rate for elderly individuals (29 percent) was much lower than both the overall rate for individuals (59 percent) and the rate for adults ages 18 to 59 (60 percent). Participation rates for elderly persons are consistently lower than rates for other persons because elderly persons tend to live in smaller households, have higher per-capita incomes, and receive smaller monthly benefits than others--all characteristics associated with low participation rates. Furthermore, the participation rate for elderly persons living alone (32 percent) was lower than the participation rate for other adults living alone (84 percent). Martini (1992) examined which of the two effects--living alone or being elderly--was the more important determinant of the low participation rate among elderly who live alone, and found that both characteristics had a large independent impact on the rate. The participation rate for disabled individuals (57 percent) was only slightly lower than the overall rate for eligible individuals and adults.

Among elderly and disabled persons, participation rates were higher for those who lived alone (32 percent and 90 percent) than for those who lived with others (24 percent and 44 percent). This finding may suggest that elderly and disabled persons who live with others have greater access to outside resources that reduce their likelihood of participating.

Participation rates were slightly higher for persons living inside metropolitan areas (60 percent) than for persons living outside metropolitan areas (57 percent).

TABLE III.3

INDIVIDUAL PARTICIPATION RATES BY SELECTED  
DEMOGRAPHIC CHARACTERISTICS: JANUARY 1989

	Number of Participating Individuals (in Thousands)	Number of Eligible Individuals (in Thousands)	Individual Participation Rate
Elderly Age 60 or Older	1,427	5,000	28.5 %
Living alone	948	3,004	31.5
Living with others	480	1,996	24.0
Disabled under Age 60	680	1,187	57.3
Living alone	302	336	89.9
Living with others	378	852	44.4
Children under Age 18	9,098	13,372	68.0
Preschool	3,065	4,176	73.4
School-age	6,032	9,196	65.6
Adults Ages 18 to 59 (includes disabled adults)	7,539	12,668	59.5
Living alone (not disabled)	1,028	1,222	84.1
Gender			
Male	7,342	12,823	57.3
Female	11,002	18,218	60.4
Metropolitan Status <sup>a</sup>			
Inside metropolitan area	13,162	21,866	60.2
Outside metropolitan area	5,182	9,175	56.5
Total	18,344	31,041	59.1

SOURCES: Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

<sup>a</sup>Estimates of the number of eligibles were adjusted by an inflation factor to compensate for the subsampling of the metropolitan population in SIPP. The adjustment factors are published in Table 5 of the technical documentation of the SIPP 1988 Panel (U.S. Department of Commerce, 1991). The non-metropolitan eligible population is computed as the difference between the total population and the metropolitan population.

Table III.4 presents household participation rates by selected demographic characteristics. As the table shows, there is a wide range in participation rates among groups. As with individual rates, the household rates show that households containing elderly persons were less likely to participate

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TABLE III.4

HOUSEHOLD PARTICIPATION RATES BY SELECTED  
DEMOGRAPHIC CHARACTERISTICS: JANUARY 1989

	Number of Participating Households (in Thousands)	Number of Eligible Households (in Thousands)	Household Participation Rate
<b>Household Contains:</b>			
Elderly Age 60 or Older	1,291	4,451	29.0 %
Disabled under Age 60	640	1,115	57.4
Children under Age 18	4,216	6,010	70.1
Children Ages 5 to 17	3,165	4,644	68.2
Single Female Adult with Children	2,718	3,507	77.5
Single Male Adult with Children	109	192	56.7
Two or More Adults with Children <sup>a</sup>	1,389	2,296	60.5
White non-Hispanic Head	3,283	7,146	45.9
Black non-Hispanic Head	2,653	3,452	76.9
Hispanic Head	890	1,763	50.5
<b>Metropolitan Status:<sup>b</sup></b>			
Inside metropolitan area	5,122	9,051	56.6
Outside metropolitan area	1,915	3,639	52.6
Total <sup>c</sup>	7,037	12,689	55.5

**SOURCES** Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

<sup>a</sup>Includes both households in which the gender of the household head is unknown and female-headed households that contain two or more adults.

<sup>b</sup>Estimates of the number of eligibles were adjusted by an inflation factor to compensate for the subsampling of the metropolitan population in SIPP. The adjustment factors are published in Table 5 of the technical documentation of the SIPP 1988 Panel (U.S. Department of Commerce, 1991). The non-metropolitan eligible population is computed as the difference between the total population and the metropolitan population.

<sup>c</sup>Categories do not sum to total because households may exhibit more than one of the characteristics listed.

TABLE III.5  
 BENEFIT RATES BY SELECTED DEMOGRAPHIC  
 CHARACTERISTICS OF THE HOUSEHOLD:  
 JANUARY 1989

	Benefits Paid to Participating Households (in Millions)	Potential Benefits for Eligible Households (in Millions)	Benefit Rate
Household Contains:			
Elderly Age 60 or Older	\$66.0	\$214.1	30.8 %
Disabled under Age 60	54.7	103.5	52.8
Children under Age 18	750.2	1,048.0	71.6
Children Ages 5 to 17	595.5	848.6	70.2
Single Female Adult with Children	452.5	585.6	77.3
Single Male Adult with Children	17.6	26.3	67.0
Two or More Adults with Children <sup>a</sup>	280.1	433.5	64.6
White non-Hispanic Head	397.7	668.2	59.5
Black non-Hispanic Head	365.7	443.0	82.6
Hispanic Head	130.7	244.9	53.4
Metropolitan Status: <sup>b</sup>			
Inside metropolitan area	669.3	1,011.0	66.2
Outside metropolitan area	258.1	394.6	65.4
Total	927.4	1,405.6	66.0

**SOURCES:** Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for benefits issued in error. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

<sup>a</sup>Includes both households in which the gender of the household head is unknown and female-headed households that contain two or more adults. Benefit rates were almost identical to household rates for single female-headed and male-headed households.

<sup>b</sup>Estimates of the number of eligibles were adjusted by an inflation factor to compensate for the subsampling of the metropolitan population in SIPP. The adjustment factors are published in Table 5 of the technical documentation of the SIPP 1988 Panel (U.S. Department of Commerce, 1991). The non-metropolitan eligible population is computed as the difference between the total population and the metropolitan population.

The benefit rates were substantially higher than the household rates for only two groups: (1) households headed by white non-Hispanics (14 percentage points higher), and (2) households that contained a single male adult with children (10 percentage points higher). For these two groups, benefit levels probably have a greater influence on their participation decisions than they do on the decisions of other households. However, because the sample size for eligible households headed by a single male with children was small, the statistical reliability for this group is low:

The benefit rate was lower than the household rate for only one group: households that contain a disabled member under age 60 (5 percentage points lower). However, this finding is not too surprising since the decision to participate in the FSP of many households containing disabled members is made jointly with their decision to participate in the SSI program. Hence, they would participate in the FSP regardless of their expected food stamp benefit. Furthermore, households in which all members receive SSI are automatically eligible for food stamps.

## **B. PARTICIPATION RATES BY SELECTED ECONOMIC CHARACTERISTICS**

Table III.6 presents household participation rates disaggregated by the level of potential benefits as a percentage of the maximum allotment. The estimates support research which shows that the decision to participate in the FSP is influenced by the level of benefits for which a household is eligible.<sup>1</sup> In January 1989, households eligible for the smallest benefits (benefits of between 1 percent and 25 percent of the maximum allotment, which is up to 25 dollars in benefits for households with 4 persons) had the lowest participation rate (32 percent). Participation rates increased as potential benefits rose, reaching 83 percent for households eligible for benefits of 76 percent to 99 percent of the maximum.

The only exception to this pattern is a decline in the rate for households entitled to the maximum benefit allotment. As will be shown in Chapter IV, the unusually low participation rate for

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<sup>1</sup>Allin and Beebout (1989) review the research on the relationship between benefit levels and FSP participation.

TABLE III.6

HOUSEHOLD PARTICIPATION RATES BY MONTHLY BENEFITS  
AS A PERCENTAGE OF THE MAXIMUM FSP ALLOTMENT:  
JANUARY 1989

Monthly Benefit Level as a Percentage of Maximum Allotment <sup>a</sup>	Number of Participating Households (in Thousands)	Number of Eligible Households (in Thousands)	Household Participation Rate
1-25%	1,032	3,232	31.9 %
26-50	1,315	2,573	51.1
51-75	1,835	2,520	72.8
76-99	1,501	1,800	83.4
100	1,353	2,564	52.8
Total	7,037	12,689	55.5

**SOURCES:** Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

<sup>a</sup>The maximum allotment varies by household size. The maximum allotment for a family of 4 in January 1989 was \$300.

households eligible for the maximum benefit was also found in estimates for 1988 and 1985. In those estimates, it was assumed that the low participation rate was associated with measurement or classification problems of eligible households with zero gross income. However, in the 1989 estimate, it appears that most of the households eligible for the maximum benefit had positive gross income and high expenses which reduced their net income to zero.<sup>2</sup> Hence, although there may be some measurement or classification problems causing the low participation rate for households eligible for the maximum benefit, the zero gross income problem may not be a major factor in 1989.

Table III.7 shows that eligible individuals in households whose income was below the poverty level participated in the program at much higher rates (74 percent) than did individuals who lived in households whose income was above the poverty level (17 percent). Similarly, 72 percent of households in poverty participated, receiving 72 percent of the benefits which would have been issued had all poor households participated (Tables III.8 and III.9). The higher participation rates for households in poverty is not surprising since they are eligible for higher benefits than are households with incomes above poverty. For example, persons in eligible households in poverty were eligible for \$20 on average in January 1989, while persons in households whose income was below the poverty level were eligible for \$54 on average.

As expected, participation rates declined as income increased in January 1989. For example, participation rates for individuals in households with zero income were 88 percent in January 1989, and declined as income rose, reaching 17 percent for those in households whose incomes were above the poverty line. Similar patterns were found for households and for potential benefit levels.<sup>3</sup> Studies of participation rates in other programs, such as SSI, have also found that participation rates

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<sup>2</sup>Over 60 percent of the households eligible for the maximum benefit in January 1989 had positive gross income and high expenses relative to their income. Only about 43 percent of these households participate in the FSP.

<sup>3</sup>The only exception to this pattern was a slightly lower participation rate (4 percentage points lower) for households with zero income than for households whose incomes were between 1 and 50 percent of the poverty level.

TABLE III.7

INDIVIDUAL PARTICIPATION RATES BY THE  
RATIO OF THE GROSS INCOME OF THE INDIVIDUAL'S FOOD  
STAMP UNIT TO THE MONTHLY FEDERAL POVERTY LEVEL:  
JANUARY 1989

Income as a Percentage of Poverty	Number of Participating Individuals (in Thousands)	Number of Eligible Individuals (in Thousands)	Individual Participation Rate
Total ≤ 100	17,032	23,167	73.5 %
0	1,084	1,230	88.1
1-50	6,618	8,219	80.5
51-100	9,331	13,718	68.0
Total > 100	1,311	7,873	16.7
Total	18,344	31,041	59.1

SOURCES: Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

TABLE III.8

HOUSEHOLD PARTICIPATION RATES BY THE RATIO OF THE  
GROSS INCOME OF THE FOOD STAMP UNIT TO THE MONTHLY  
FEDERAL POVERTY LEVEL: JANUARY 1989

Income as a Percentage of Poverty	Number of Participating Households (in Thousands)	Number of Eligible Households (in Thousands)	Household Participation Rate
Total ≤ 100	6,519	9,030	72.2 %
0	532	647	82.2
1-50	2,224	2,573	86.5
51-100	3,763	5,811	64.8
Total > 100	518	3,659	14.2
Total	7,037	12,689	55.5

SOURCES: Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

TABLE III.9

BENEFIT RATES BY THE RATIO OF THE GROSS INCOME OF THE  
FOOD STAMP UNIT TO THE MONTHLY FEDERAL POVERTY LEVEL:  
JANUARY 1989

Income as a Percentage of Poverty	Benefits Paid to Participating Households (in Millions)	Potential Benefits for Eligible Households (in Millions)	Benefit Rate
Total ≤ 100	\$903.1	\$1,251.4	72.2 %
0	87.7	99.6	88.1
1-50	439.0	558.8	78.6
51-100	376.4	593.0	63.5
Total > 100	24.2	154.2	15.7
Total	927.4	1,405.6	66.0

SOURCES: Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for benefits issued in error. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

decline as family income increases. For example, based on 1985 SIPP data, Shiels et. al. (1990) found that the rate of participation among elderly persons eligible for SSI declined from 84 percent for those with no income, to a low of 26 percent for those whose monthly income was \$500 or more.

Table III.10 presents household participation rates among those with earnings, SSI, public assistance, and unemployment compensation. The estimated participation rate for households with earnings was much lower than the overall rate (32 percent versus 56 percent) in January 1989. Recipients of unemployment compensation also participated at a lower rate (46 percent) than the total eligible population. However, because the sample size for eligible households with unemployment compensation was small, the statistical reliability of these estimates is low.

The household participation rate for food stamp households that received SSI payments--67 percent--exceeded the overall participation rate by over 11 percentage points. Households in both the numerator and the denominator of this participation rate exclude persons in states where cash is issued through the SSI program in lieu of food stamps (California and Wisconsin in January 1989).

Households that received SSI income and contained elderly persons participated in the FSP at a much lower rate than households that received SSI income and did not contain elderly persons (58 percent versus 83 percent). This finding is not surprising, since households with elderly persons tend to participate in the FSP at much lower rates than other households.

The estimates for households that receive public assistance, especially those that receive AFDC, exceeded 100 percent. These unrealistic rates are due primarily to the underreporting of AFDC receipt in SIPP (the number of AFDC recipients in SIPP was only 79 percent of an independent estimate derived from administrative data), as discussed in the Appendix. Nonetheless, other multivariate analyses have found a strong positive relationship between participation in the FSP and participation in public assistance programs (see Allin and Beebout, 1989).

TABLE III.10

HOUSEHOLD PARTICIPATION RATES BY SELECTED  
SOURCES OF INCOME: JANUARY 1989

Source of Income	Number of Participating Households (in Thousands)	Number of Eligible Households (in Thousands)	Household Participation Rate
Earned Income	1,383	4,277	32.3 %
SSI	1,401	2,093	67.0
Elderly in the unit	789	1,351	58.4
No elderly in the unit	612	741	82.6
Public Assistance <sup>a</sup>	3,640	3,009	121.0
AFDC	2,899	2,381	121.7
Other welfare	791	748	105.7
Unemployment Compensation	157	343	45.6
Total	7,037	12,689	55.5

SOURCES: Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

<sup>a</sup>Public assistance refers to Aid to Families with Dependent Children (AFDC), General Assistance (GA), and local means-tested programs, such as Emergency Assistance.

### C. THE CHARACTERISTICS OF ELIGIBLE NONPARTICIPANTS

The preceding sections focused on households that participated in the Food Stamp Program. This section focuses on households that were eligible for the FSP but did not participate.

In January 1989, about 5.7 million of the 12.7 million households eligible for the FSP were not participating, as shown in Table III.11. These households tended to have relatively high incomes and were entitled to relatively small benefits. Among all eligible nonparticipating households--

- More than one-half had incomes above the poverty level.
- Almost 40 percent were eligible for a relatively small monthly benefit--1 percent to 25 percent of the maximum (\$20 on average).

As shown earlier in this paper and in other research (Doyle, 1990), those who are eligible for lower benefits tend to participate in the FSP at lower-than-average rates. Thus, these results are not surprising. These characteristics of nonparticipating eligibles also serve as further evidence that the program is targeted effectively at those whose need is comparatively greater.

Most nonparticipating households contained either an elderly member (two-thirds of whom lived alone) or a working member (most of whom had children) in January 1989. These characteristics also are consistent with the findings in this paper that participation among households with elderly (29 percent) and earners (32 percent) is below average. Most nonparticipating households reside in metropolitan areas (69 percent).

More than half of the eligible nonparticipating households (56 percent) had income above the poverty level, but about 44 percent had income below the poverty level. Overall, about 21 percent of all nonparticipating households were eligible for the maximum allotment. In previous estimates (for 1985 and 1988) it was assumed that most of the nonparticipating households eligible for the maximum allotment were households with zero gross income--a group with measurement and classification problems. However, only about 10 percent of the nonparticipating households eligible for the maximum benefit in 1989 have zero gross income. Most of the nonparticipating households

TABLE III.11

THE CHARACTERISTICS OF ELIGIBLE NONPARTICIPATING HOUSEHOLDS  
ABOVE AND BELOW POVERTY: JANUARY 1989

	Percent Distribution of Eligible Nonparticipating Households <sup>a</sup>		
	Below Poverty	Above Poverty	Total
<b>Benefit Level as a Percentage of Maximum Allotment</b>			
1-25%	3.5 %	35.4 %	38.9 %
26-50	8.1	14.2	22.3
51-75	8.8	3.3	12.1
76-99	4.5	0.8	5.3
100	19.5	1.9	21.4
Total	44.4	55.6	100.0
<b>Composition</b>			
Elderly Present	25.5	30.4	55.9
Living alone	15.5	21.0	36.4
Living with others	10.0	9.4	19.5
Nonelderly Households with			
Earnings	23.6	21.0	44.6
With children	17.3	14.0	31.3
Without children	6.3	7.0	13.3
<b>Metropolitan Status</b>			
Inside metropolitan area	27.6	41.8	69.5
Outside metropolitan area	16.8	13.7	30.5
Total	44.4	55.6	100.0
<b>Eligible Nonparticipating</b>			
Persons (in thousands)	6,135	6,562	12,697
Households (in thousands)	2,512	3,141	5,653
Benefits (in millions)	\$348	\$130	\$478

SOURCES: Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

NOTE: Eligible nonparticipants are computed as the difference between eligibles and participants.

<sup>a</sup>Percentage may not sum to 100 due to rounding error.

eligible for the maximum benefit (almost 75 percent) have positive gross incomes and relatively high expenses that make them eligible for the maximum benefit. For reasons that are not clear, many of the eligible households with high expenses chose not to participate. Table III.12 shows the characteristics of those nonparticipating households in poverty that were eligible for the maximum benefit.

Table III.13 shows the overall demographic and economic characteristics of eligible nonparticipating households in January 1989. Overall, about half of the eligible nonparticipating households consisted of a single adult, and 56 percent contained elderly member(s). Just under one-third contained children, and over two-thirds were headed by a white non-Hispanic individual. The eligible nonparticipating households with children (32 percent) were almost evenly divided into those headed by a single female (14 of 32 percent) and those headed by two or more adults (16 of 32 percent). Only 2 percent of the eligible nonparticipating households with children were headed by a single male.

TABLE III.12

**THE CHARACTERISTICS OF ELIGIBLE NONPARTICIPATING  
HOUSEHOLDS BELOW POVERTY THAT ARE ELIGIBLE FOR  
THE MAXIMUM FOOD STAMP BENEFIT: JANUARY 1989**

	Eligible Nonparticipating Households Below Poverty that are Eligible for Maximum FSP Benefit	
	Population (in Thousands)	Distribution of Households
<b>Composition</b>		
Elderly Present	409	37.8 %
Living alone	264	24.4
Living with others	145	13.4
Nonelderly Households with Earnings	234	21.6
With children	102	9.5
Without children	132	12.2
Nonelderly Households without Earnings	438	40.5
With children	369	34.1
Without children	69	6.4
<b>Income as a Percentage of Poverty<sup>a</sup></b>		
0		
1-50	115	10.7
51-100	601	55.6
	365	33.8
<b>Metropolitan Status</b>		
Inside metropolitan area	747	69.1
Outside metropolitan area	334	30.9
<b>Total Households</b>	<b>1,081</b>	<b>100.0</b>

**SOURCES:** Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

**NOTE:** Eligible nonparticipants are computed as the difference between eligibles and participants.

<sup>a</sup>Percentages may not sum to totals due to rounding error.

TABLE III.13

DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF ELIGIBLE  
NONPARTICIPATING HOUSEHOLDS: JANUARY 1989

	Population (in Thousands)	Distribution of Households
<b>Household Size<sup>a</sup></b>		
1	2,846	50.4 %
2	1,070	18.9
3	564	10.0
4	424	7.5
5	349	6.2
6+	400	7.1
<b>Household Contains:<sup>b</sup></b>		
Elderly	3,160	55.9
Elderly living alone	2,060	36.4
Disabled	475	8.4
Disabled under age 60	35	0.6
Children under age 18	1,794	31.7
Children ages 5 to 17	1,478	26.1
Single female with children	790	14.0
Single male with children	83	1.5
Two or more adults with children	907	16.0
Single nonelderly and nondisabled adult	198	3.5
White non-Hispanic head	3,910	69.2
Black non-Hispanic head	837	14.8
Hispanic head	886	15.7
<b>Income as a Percentage of Poverty<sup>a</sup></b>		
Total ≤ 100%	2,512	44.4
0	115	2.0
1-50	348	6.2
51-100	2,048	36.2
Total > 100%	3,141	55.6
<b>Household Income Includes:<sup>b</sup></b>		
Earnings	2,895	51.2
SSI	692	12.2
Unemployment compensation	187	3.3
<b>Metropolitan Status</b>		
Inside metropolitan area	3,927	69.5
Outside metropolitan area	1,726	30.5
Total Households	5,653	100.0

**SOURCES:** Counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants. Counts of participants were distributed across subgroups of the population based on a sample of 10,514 food stamp case records from the IQCS for January and February 1989. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps.

**NOTE:** Eligible nonparticipants are computed as the difference between eligibles and participants.

<sup>a</sup>Percentages may not sum to totals due to rounding error.

<sup>b</sup>Percentages do not sum to 100 because households may exhibit more than one of the characteristics listed. Note that the elderly and the disabled categories are not mutually exclusive.



#### IV. CHANGES IN PARTICIPATION RATES FROM 1985 TO 1989

Persons interested in FSP policy often wish to know whether participation rates have risen or declined over time. While it is unreasonable to expect 100 percent participation among the eligible population, knowing how the rate of participation has changed over time allows policymakers to understand the program's relative success at reaching the eligible population. This chapter examines changes in participation rates across three points in time: August 1985 (based on Doyle, 1990), January 1988 (based on Trippe and Doyle, 1992), and January 1989 (based on this report). It also discusses the major reasons for the observed changes in the rates. Although it is difficult to make broad generalizations about trends based only on three points in time, it is possible to understand the short-term changes in the rates.

Participation rates change when the rate of growth in the number of participants differs from the rate of growth in the number of eligibles. Changes in FSP legislation, economic conditions, and other programs affect the rate of growth among participants and eligibles, thus affecting changes in

## **A. CHANGES IN AGGREGATE FSP PARTICIPATION RATES**

Participation rates in the FSP declined slightly between August 1985 and January 1988, but remained constant between January 1988 and January 1989. As shown in Table IV.1, participation rates for individuals fell by 5 percentage points between 1985 and 1988, but remained at about 59 percent between 1988 and 1989. Similarly, rates for households fell by about 3 percentage points from 1985 to 1988, but remained at about 56 percent from 1988 to 1989. Finally, rates of benefit receipt as a percentage of total potential benefits fell by almost 9 percentage points from 1985 to 1988, but remained at between 67 and 66 percent between 1988 and 1989.

Participation rates declined between August 1985 and January 1988 because the number of eligibles increased substantially, while the number of participants remained constant. However, participation rates remained constant between January 1988 and January 1989 because neither the number of eligibles nor the number of participants changed much from January 1988. The reasons for the shift in rates between 1985 and 1988 and for the steady rates between 1988 and 1989 are described in more detail in Section IV. C.

Table IV.1 shows that the benefit participation rate in all three years was substantially higher than both the individual participation rate and the household rate, and that the individual rate was higher than the household rate. This consistent pattern across time indicates that households with higher benefit levels, and thus greater need, are more likely to participate than households with lower benefit levels. It also implies that larger households are more likely to participate than smaller households. This finding is consistent with other research (for example: Doyle, 1990; Allin and Beebout, 1989; and Ross, 1988).

## **B. CHANGES IN PARTICIPATION RATES BY DEMOGRAPHIC AND ECONOMIC SUBGROUPS**

In this section, we discuss how participation rates for subgroups of the eligible population have changed relative to participation rates for the total eligible population between 1985 and 1989.

TABLE IV.1

COMPARISON OF PARTICIPATION RATES FOR 1985, 1988, AND 1989

	August 1985			January 1988			January 1989		
	Participants (in Thousands)	Eligibles (in Thousands)	Participation Rate	Participants (in Thousands)	Eligibles (in Thousands)	Participation Rate	Participants (in Thousands)	Eligibles (in Thousands)	Participation Rate
Individuals	18,560	28,884	64.3%	18,286	30,973	59.0%	18,344	31,041	59.1%
Households	6,894	11,604	59.4	6,882	12,292	56.0	7,037	12,689	55.5
Benefits	\$807,265	\$1,072,262	75.3	\$890,158	\$1,334,779	66.7	\$927,391	\$1,405,636	66.0

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**SOURCE:** January 1989 counts for participants are from the Food Stamp Program Statistical Summary of Operations, adjusted for ineligible participants and benefits issued in error. Estimates for eligibles were derived from tabulations prepared with the January 1989 analysis file developed by MPR from SIPP, 1987 and 1988 panels. The SIPP analysis file contains a sample of 22,040 households and 2,843 households eligible for food stamps. August 1985 values and rates are from Table 1 of Doyle (1990), and January 1988 values and rates are from Table IV.1 of Trippe and Doyle (1992).

Although the *absolute* participation rates of some subgroups are much larger or smaller than those of the total population, the *direction* of the change in the rates among most subgroups over time is consistent with the direction of the change among the total population. These comparisons are discussed below.

### **1. Changes among Demographic Subgroups**

Participation rates among most subgroups of the eligible population declined slightly between August 1985 and January 1988, just as overall participation rates fell during this time period (Table IV.2). Participation rates for two subgroups, households containing single persons and households containing two or more adults with children, fell slightly more than average (by 5 percentage points and 8 percentage points, respectively, compared to 3 percentage points overall). While declines in the rates among these two groups are higher than average, they are not surprising given that households with single persons and households with two or more adults with children were among those exhibiting the largest increases in new eligibles under the 1985 FSA (see Section IV.C). Three types of households shown in Table IV.2 exhibited an increase in participation rates between 1985 and 1988: (1) households with disabled persons under age 60, (2) households with single female adults with children, and (3) households with single male adults with children.

Between January 1988 and January 1989, participation rates changed very little among many of the subgroups, just as they changed very little among the total population. For example, participation rates for households with children, single persons, and white non-Hispanic heads remained constant between 1988 and 1989. However, participation rates for households containing elderly persons and households containing two or more adults with children continued to decline, while participation rates for households containing disabled persons under age 60 and single parents continued to rise.

The drop in participation rates (by 6 percentage points) for households containing elderly persons between 1988 and 1989 is largely due to a substantial (11 percent) increase in the number of eligible households containing elderly persons combined with a small decrease in the number of

TABLE IV.2

COMPARISON OF HOUSEHOLD PARTICIPATION RATES BY  
SELECTED DEMOGRAPHIC CHARACTERISTICS:  
AUGUST 1985, JANUARY 1988, AND JANUARY 1989

Demographic Characteristics	August 1985	January 1988	January 1989
<b>Household Contains:</b>			
Elderly age 60 or Older	37.3%	35.0%	29.0%
Disabled under age 60	46.7	55.2	57.4
Children under age 18	73.9	71.3	70.1
Children ages 5 to 17	NA	68.3	68.2
Single person	49.8	45.0	44.7
Single female adult with children	74.8	75.5	77.5
Single male adult with children	45.9	55.8	56.7
Two or more adults with children <sup>a</sup>	75.3	66.8	60.5
White non-Hispanic head	48.9	46.9	45.9
Black non-Hispanic head	77.1	76.0	76.9
Hispanic head	54.8	54.2	50.5
<b>Total</b>	<b>59.4</b>	<b>56.0</b>	<b>55.5</b>

SOURCES: January 1989 rates are from Table III.4 of this report. August 1985 rates are from Table 2 and Table 4 of Doyle (1990), and January 1988 rates are from Table IV.3 of Trippe and Doyle (1992).

<sup>a</sup>This category includes both households in which the gender of the household head is unknown and female-headed households that contain two or more adults.

Note: Changes in rates between 1988 and 1989 may reflect changes in the SIPP questionnaire used to gather the data. See, for example, page 36 for a discussion of reasons for the change in participation rates for households containing elderly persons.

participating households with elderly persons. There are three factors contributing to the rise in the number of eligible households. First, the total number of low-income households (households with incomes less than 185 percent of the poverty level) containing elderly persons increased between 1988 and 1989 based on SIPP data (by about 4 percentage points). Second, the proportion of income-eligible households containing elderly persons that passed the asset test in the SIPP data increased between 1988 and 1989 (from 61 percent to 65 percent). These first two factors account for about 9 percentage points of the 11 percent increase. The remaining 2 percentage points of the increase in the number eligible households containing elderly persons may be due to the increase in the number of eligible households receiving the medical deduction (from 8.2 percent to 13.8 percent) in the SIPP data between 1988 and 1989. The increase in the proportion of households receiving the medical deduction and passing the asset test may in part be attributed to the change in the SIPP questionnaire design in 1989. The design change, which included the new eligibility module in the 1989 SIPP, resulted in more direct measures of deductible expenses and changes in measures of vehicular assets (see Appendix). Thus, the overall decrease in the participation rate for the elderly is due to a combination of actual changes among this population and changes in the design of the SIPP questionnaire. The next estimates of participation rates will help determine whether the trend of falling rates among elderly households is a measurement issue or is actually happening in the population, since these estimates will again be based on the expanded SIPP information.

In all three years, participation rates among households with elderly persons, single persons, and white non-Hispanic heads are lower than overall participation rates. This pattern is consistent with results found in earlier research (see Trippe and Doyle, 1992). Conversely, in all three years, participation rates among households with children, single female adults with children, and black non-Hispanic heads are consistently higher than overall rates.

## 2. Changes among Economic Subgroups

Participation rates among most economic subgroups shown in Table IV.3 declined slightly between August 1985 and January 1988, just as overall rates fell during this time period. For example, participation rates among households with income in poverty, earnings, or public assistance declined by 3 to 5 percentage points between 1985 and 1988. However, participation rates among households with SSI income increased between 1985 and 1988 (by 9 percentage points). The increase in rates among households with SSI income is driven largely by the increase in rates among households containing disabled persons as shown in Table IV.2.

Overall participation rates did not change between January 1988 and January 1989 (from 56.0 percent to 55.5 percent). However, rates among some economic subgroups did change. In fact, participation rates among many of the subgroups in 1989 moved back to levels close to their 1985 rates. For example, participation rates for households with income in poverty or public assistance (rates that declined between 1985 and 1988) moved back up in January 1989 to levels close to the August 1985 rates. Similarly, participation rates for households with SSI income (rates that increased between 1985 and 1988) moved back down in January 1989 to levels close to the August 1985 rates.

In 1985, households with SSI income and *elderly* in the units were more likely to participate in the FSP than households with SSI income and *no elderly* in the unit. In 1988 and 1989, this pattern reversed: SSI households with no elderly in the unit were more likely to participate than households with elderly in the unit. The higher FSP participation rates for SSI households containing no elderly in the unit in 1988 and 1989 may be due to changes in the SSI program causing an increase in the proportion of nonelderly SSI recipients over the proportion of elderly SSI recipients, with little or no change in the proportions of elderly and nonelderly SSI eligibles (U.S. Department of Health and Human Services, 1987-1989, and conversations with Social Security Administration staff).

Participation rates by monthly benefit levels as a percentage of the maximum allotment show a consistent pattern of increase in all three years as the monthly benefit level rises to 99 percent of the

TABLE IV.3

COMPARISON OF HOUSEHOLD PARTICIPATION RATES  
BY SELECTED ECONOMIC CHARACTERISTICS:  
AUGUST 1985, JANUARY 1988, AND JANUARY 1989

Economic Characteristic	August 1985	January 1988	January 1989
<b>Monthly Benefit Level as a Percentage of Maximum Allotment</b>			
1-25%	30.0%	29.9%	31.9%
26-50%	58.3	61.5	51.1
51-75%	86.0	68.7	72.8
76-99%	89.1	91.0	83.4
100%	64.3	50.5	52.8
<b>Income as a Percentage of Poverty</b>			
Total $\leq$ 100%	74.6	70.2	72.2
0	69.0	70.0	82.2
1-50	92.7	78.5	86.5
51-100	67.2	66.5	64.8
Total > 100	14.8	16.8	14.2
<b>Source of Income</b>			
Earned income	36.8	33.9	32.3
SSI:	65.7	75.0	67.0
Elderly in the unit	66.6	70.3	58.4
No elderly in the unit	64.1	82.6	82.6
Public assistance:	115.5	110.5	121.0
AFDC	118.5	112.5	121.7
Other welfare	97.4	98.9	105.7
Unemployment compensation	75.6	46.4	45.6
Total	59.4	56.0	55.5

SOURCES: January 1989 rates are from Tables III.6, III.8, and III.10 of this report. August 1985 rates are from Table 2 and Table 4 of Doyle (1990), and January 1988 rates are from Table IV.4 of Trippe and Doyle (1992).

NOTE: Changes in rates between 1988 and 1989 may reflect changes in the SIPP questionnaire used to gather the data.

maximum. However, the rates in all three years drop by 25 to 41 percentage points when potential benefits rise from 76 to 99 percent of the maximum allotment to 100 percent of the maximum.

As expected, participation rates in all years were much higher for households with income below the poverty level than for households with income above the poverty level. Participation rates for households in poverty were 14 to 17 percentage points *higher* than average, while rates for households not in poverty were 39 to 45 points *lower* than average. Participation rates were consistently lower than average for households with earnings (ranging from 22 to 23 percentage points lower than average).

### **3. Changes Among Eligible Non-participating Households**

Table IV.4 shows that the distribution of eligible households that did not participate in the FSP has followed a consistent pattern in all three years. That is, the largest proportion of eligible nonparticipating households in 1985, 1988, and 1989 were households that contained elderly persons (about half), white non-Hispanic heads (over two-thirds), with incomes over the poverty level (over half), earnings (about half), or were eligible for small benefits (one-third to one-half were eligible for 1 to 25 percent of the maximum benefit allotment). As expected, these household types tended to have lower-than-average participation rates in all three years.

Although the overall distribution of nonparticipating households is consistent over the three years, there were some small variations over the time period. For example, for some subgroups, the proportion of eligible nonparticipating households changed after implementation of the FSA in 1988, but returned to levels close to those of 1985 in 1989. For example, the proportion of eligible nonparticipating households with elderly declined slightly in 1988 but increased in 1989. Similarly, the proportion of nonparticipating households with incomes above the poverty level declined slightly in 1988 and increased in 1989 to a level slightly above that of 1985. On the other hand, eligible nonparticipating households with disabled persons have been dropping steadily since 1985 (and participation rates for this group have been increasing since 1985).

TABLE IV.4

COMPARISON OF THE DEMOGRAPHIC AND ECONOMIC  
CHARACTERISTICS OF ELIGIBLE NONPARTICIPATING HOUSEHOLDS:  
AUGUST 1985, JANUARY 1988, AND JANUARY 1989

	Percent Distribution of Eligible Nonparticipating Households		
	August 1985	January 1988	January 1989
<b>Household Contains:<sup>a</sup></b>			
Elderly age 60 or older	52.7 %	48.0 %	55.9 %
Elderly living alone	32.4	29.6	36.4
Disabled under age 60	11.5	9.4	8.4
Disabled living alone	3.7	2.1	0.6
Children under age 18	30.5	31.3	31.7
Children ages 5 to 17	NA	27.6	26.1
Single person	49.6	49.5	50.4
Single female with children	17.1	15.1	14.0
Single male with children	2.4	1.8	1.5
Two or more adults with children	11.0	14.4	16.0
Single nonelderly and nondisabled adult	NA	8.1	3.5
White non-Hispanic head	73.2	68.9	69.2
Black non-Hispanic head	15.8	14.8	14.8
Hispanic head	12.4	13.8	15.7
<b>Income as a Percent of Poverty</b>			
Total ≤ 100%	46.7	49.7	44.4
0	4.5	3.8	2.0
1-50	3.9	10.2	6.2
51-100	38.3	35.7	36.2
Total > 100%	53.4	50.3	55.6
<b>Benefit as a Percentage of Maximum Allotment</b>			
1-25%	54.8	43.1	38.9
26-50%	19.5	15.7	22.3
51-75%	5.8	15.2	12.1
76-99%	3.8	2.6	5.3
100%	16.2	23.4	21.4
<b>Household Income Includes:</b>			
Earnings	49.3	51.1	51.2
SSI	14.4	8.8	12.2
Unemployment compensation	1.3	3.4	3.3
<b>Total Households</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Eligible Nonparticipating</b>			
Persons (in thousands)	10,323	12,686	12,697
Households (in thousands)	4,711	5,410	5,652
Benefits (in millions)	\$265	\$445	\$478

SOURCES: January 1989 percentages are from from Tables III.11 and III.13 of this report. August 1985 percentages were derived from Table 12 of Doyle (1990) and January 1988 percentages are from Tables III.11 and III.13 of Doyle and Trippe (1992).

NOTE: Eligible nonparticipants are computed as the difference between eligibles and participants.  
Changes in percents between 1988 and 1989 may reflect changes in the SIPP questionnaire used to gather the data.

<sup>a</sup>Percentages do not sum to 100 because households may exhibit more than one of the characteristics listed.

NA = These values were not produced in the August 1985 estimates.

## **C. REASONS FOR CHANGES IN FSP PARTICIPATION RATES FROM 1985 TO 1989**

As discussed, participation rates declined between August 1985 and January 1988 but remained steady between January 1988 and January 1989. This section examines the major reasons for the decline in participation rates between 1985 and 1988 and for the stability of the rates between 1988 and 1989. It also examines the reasons for any particularly large or unexpected changes in rates among certain subgroups. Specifically, we discuss how the major legislative, economic, and other program changes affected the number of participants and eligibles between 1985 and 1989, thus effecting the changes in rates. We also discuss any possible effects that the improvement in the SIPP data have on participation rates.

### **1. Changes In Food Stamp Program Legislation**

The decline in participation rates between 1985 and 1988 was due largely to an expansion in the number of eligibles induced by legislation passed by Congress, combined with little or no change in the number of participants. The most substantial expansions in the number of FSP eligibles were due to the more generous eligibility criteria introduced under the 1985 Food Security Act (FSA), implemented in 1986. Among other changes, the 1985 FSA (1) granted automatic eligibility to households in which all members receive AFDC or SSI; (2) raised the dollar amount of countable assets that could be owned by households without elderly persons and by households with elderly living alone and still qualify for food stamps; and (3) raised the earnings deduction rate. All of these changes were modeled in the 1988 SIPP eligibility model, thus increasing the total number of eligibles. The 1987 Stewart B. McKinney Homeless Assistance Act introduced minor expansions in eligibility and in participation by encouraging homeless persons to obtain food stamp eligibility and benefits.

As discussed in Trippe and Doyle (1992), the more generous eligibility criteria introduced under the 1985 FSA increased the number of total eligible households by 7 percent in January 1988. However, the participation rate for the newly eligible households was very low--only 6 percent,

compared with 56 percent for all eligible households. Thus, although the FSA legislation expanded eligibility for the FSP, most of those who became eligible did not participate. In addition, the economy was expanding between 1985 and 1988, further reducing the number of participants.

Most of the newly eligible households were made eligible by the expanded asset provisions, particularly for households that contained single elderly persons. About 40 percent of the newly eligible households contained single elderly persons. Slightly over half of the newly eligible households did not contain elderly; most of them contained children. Thus, it is not surprising that the largest declines in participation rates between 1985 and 1988 were among households that contained elderly persons, single persons, and two or more adults with children.

For several reasons it is also not surprising that most of the newly eligible households did not participate in the year and a half after the new provisions were implemented: (1) households containing elderly, single persons or two parents have historically participated at much lower-than-average rates and have received lower-than-average benefits; (2) while the impact of the provisions was immediately reflected in estimates of the size of the eligible population, the more generous eligibility criteria were relatively subtle (thus, awareness of the changes may not have been very widespread among the newly-eligible population); and (3) the economy was still expanding between 1985 and 1988, thus creating an environment in which those eligible for small benefits were less likely to seek assistance.

Between January 1988 and January 1989, the FSP program changed very little, and the number of eligibles and participants increased only slightly. The 1988 Hunger Prevention Act legislated minor additional expansions in eligibility and benefit levels, which, among other changes: (1) increased the dependent care deduction from \$160 per household to \$160 per dependent; (2) expanded the definition of disabled; and (3) excluded advanced EITC payments as income. The data base allowed us to model only the expansion in the dependent care deduction in simulating the number of eligibles. However, we found no noticeable increase in the number of eligible households with dependents due

to this change in legislation. The Hunger Prevention Act may have had some influence on the increase in the number of participants in January 1989, but most of the effect on participants is probably seen after 1989.

## **2. Changes in the Economy**

The economy grew steadily between August 1985 and January 1988 and continued to grow through January 1989. For example, the national unemployment rate declined from 7.1 percent in August 1985 to 5.8 percent in January 1988 and to 5.4 percent in January 1989. Similarly, the poverty rate declined from 14.0 percent in 1985 to 13.0 percent in 1988 and to 12.8 percent in 1989. The economy did not begin to weaken at the national level until early 1990.

In general, during a growing economy, the number of FSP eligibles and participants may decline both because more persons find jobs and increase their income, thus becoming ineligible for food stamps, and because fewer eligibles choose to participate in the program. Thus, the growing economy between 1985 and 1988 may have reduced the number of participants. However, any downward pressure on the number of eligibles from the growing economy was swamped by the expansionary effects of the 1985 FSA, as discussed earlier.

Despite the continued strong economy between January 1988 and January 1989, the number of eligible and participating households increased slightly (by between 2 and 3 percent) during that time. The slight increase in participants during a period of economic growth may be explained in part by factors identified by McConnell (1991). McConnell found that certain areas of the country experienced a deteriorating economy as early as 1988. For example, most of the New England states felt the effects of a recession during fiscal year 1988.

In summary, the overall impact of the economy on participation rates between 1985 and 1989 was probably very small. The impact of the expansionary program changes implemented under the 1985 FSA probably swamped most of the effects of the growing economy on the number of eligibles

between 1985 and 1988, and the pockets of recession and growth in the Medicaid program probably reversed any decline in the number of participants and eligibles between 1988 and 1989.

### **3. Changes in the Medicaid Program**

In addition to changes in FSP legislation and shifts in the economy, changes in other programs that are closely associated with the FSP may also affect the number of participants and eligibles. For example, expansions to the Medicaid program initiated in the late 1980s may have increased the number of participants in the FSP.

Medicaid expansions during the late 1980s may have brought more people to the FSP by encouraging newly eligible Medicaid recipients to join the FSP. Legislative changes in the Medicaid program included raising the income eligibility threshold, and encouraging states to increase their outreach programs and streamline their application processes. The result of these changes was to strengthen the link between participation in the Food Stamp and Medicaid programs. According to research conducted by McConnell (1991), many of the newly eligible Medicaid recipients were already eligible for food stamps but did not apply for food stamps until they applied for Medicaid. McConnell estimated that the increase in the number of Medicaid households accounts for about 40 percent of the total increase in the number of households that entered the FSP between FY 1987 and FY 1990.

### **4. Changes in the SIPP Questionnaire**

As discussed in the Appendix, changes in the SIPP questionnaire design in 1989 may have contributed to the increase in the number of eligible households containing elderly persons, and the consequent drop in participation rates among households with elderly between 1988 and 1989. These changes include more complete medical expense information and changes in the collection of vehicular assets.

#### **D. PROGRAM GROWTH SINCE JANUARY 1989**

FSP caseload data show that the number of FSP participants has been climbing steadily since spring 1989. More than 6 million more people were receiving food stamps in December 1991 than in January 1989. Such factors as a weak economy suggest that the number of eligible persons has also risen since 1989. However, until the SIPP survey data for this time period are available, we cannot estimate by how much the number of eligibles increased since 1989. Due to changes in the Census Bureau's schedule for administering topical questions on program eligibility for the SIPP data needed to estimate participation rates, the next available estimate of food stamp eligibility will be for January 1992. These data should be available by mid-1993. If the surge in participants is coming from the pool of previously nonparticipating eligibles, or grows at a faster rate than the eligible population, then FSP participation rates will rise from 1989.

#### **E. CONCLUSIONS**

This chapter has examined the major changes in participation rates between August 1985 and January 1988, and between January 1988 and January 1989. The downward shift in participation rates between August 1985 and January 1989 was due to two major factors: (1) expansions in the eligible population brought about by the more generous eligibility criteria implemented under the Food Security Act of 1985; combined, with (2) the lack of participation among the newly eligible under the 1985 FSA due to the historically lower-than-average participation rates for the groups most affected, the relatively subtle nature of the expansions, and the growing economy. The decline in participation rates was greatest among subgroups of the population that exhibited the greatest increase in newly eligibles: households with elderly and single persons.

Participation rates remained steady between January 1988 and January 1989, largely because there were no significant program changes. The number of participants and eligibles grew slightly, but at about the same rate. The total number of eligible and participating individuals increased by less than 1 percent, and the total number of eligible and participating households grew by between

recession around the country that may have exerted upward pressure on the number of participants and eligibles in some areas. Furthermore, expansions in Medicaid may have increased the number of participating households slightly.

The surge in the number of participants since spring 1989 may increase the participation rate after 1989, particularly if the growth in the participants comes from a pool of previously nonparticipating eligibles.

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**APPENDIX**

**TECHNICAL PROCEDURES USED TO COMPUTE PARTICIPATION RATES  
IN JANUARY 1989**



As noted in the text, we derived the participation rates in this study by comparing administrative data on program participation with survey data on program eligibles. This appendix provides detailed information on how we constructed the numerators and the denominators.

#### **A. USING ADMINISTRATIVE DATA TO ESTIMATE THE NUMBER OF PARTICIPANTS**

One reason for the disparities in previous estimates of FSP participation rates (as noted earlier) is that household survey respondents report their own participation--data that are known to be substantially underreported. For example, the U.S. Department of Commerce (1986) estimated that, on average, 92 percent of the households that received food stamps from October to December 1984 reported receiving food stamps (representing 84 percent of total food stamp benefits) in the SIPP data during that period.

The estimates of the numerator in the rates reported in the text are based on administrative data derived from three sources. The first source is the Program Operations data, which contain information on the number of persons and households that are issued benefits and the total dollar value of the coupons issued for January 1989. The Program Operations statistics are presented by state, allowing us to adjust the totals to estimate the caseload residing in the 50 states and the District of Columbia, the population reflected in SIPP.

The second data source is the Integrated Quality Control System (IQCS). We used this source to adjust the Program Operations statistics to eliminate ineligible participants and erroneous benefits which could not be captured in the SIPP-based estimates of eligibility. The number of participating households in FY 1988 Program Operations data was adjusted downward by 2.37 percent to eliminate ineligible households. Similarly, total benefits reported in the Program Operations data were adjusted to correct for erroneous benefit payments to ineligible households and for under and over payments to eligible households (net reduction of 4.73 percent.)

The third data source is a sample of food stamp case records from the January and February 1989 IQCS samples. We used the sample of case records to calculate the distribution of persons, households, and benefits across various demographic and economic characteristics.

## **B. USING SIPP TO ESTIMATE THE NUMBER OF ELIGIBLES**

We used a multi-step process to derive our estimates of the FSP-eligible population in January 1989. First, using SIPP data, we developed an analysis file that reflected the U.S. population as of January 1989. We then used this file to simulate program eligibility, a process whereby we quantified the program rules defined in the Chapter II and applied them to each dwelling unit in the data base. For each dwelling unit we also estimated its composition, eligibility status, and potential benefits. Section B.1 summarizes how we developed the analysis file, and section B.2 assesses the outcome of the eligibility simulation.

### **1. Developing the Analysis File**

SIPP is a nationally representative longitudinal survey of adults in the United States that provides detailed monthly information on income, program participation, and wealth. It is a multipanel longitudinal survey to which replacement panels are added each year. Each panel contains information on persons in a longitudinal sample followed for a period of two years or more. The longitudinal sample consists of adults age 15 or older who reside in a cross-sectional sample of dwelling units in the United States. These adults, along with other individuals with whom they resided, are interviewed every four months. In each round of interviewing (or "wave"), a core questionnaire collects information on each of the four months preceding the interview date. In most waves, the monthly core questions are supplemented with questions on a variety of topical issues that vary from wave to wave. Because the interviewing process is staggered, the reference period that is covered in any given wave is not the same for all sample members.

Although the survey is longitudinal, it is designed to support cross-sectional estimates for Census households that reside in the 50 states and the District of Columbia. For this analysis, we derived cross-sectional estimates of food stamp-eligible households from Wave 7 of the 1987 panel and Wave 4 of the 1988 Panel. We adjusted the sample weights to allow us to base eligibility estimates on combined panels. Although the two waves were independent samples of the U.S. population, their reference periods overlapped. That is, they sampled the population in the month of January, making their reference periods comparable with the administrative data used for the denominator. Together, the two waves provide a relatively large sample size (22,040 households).

The 1987 Panel Wave 7 and the 1988 Panel Wave 4 represent the first time that the Census Bureau administered a set of topical questions in SIPP focused on determining program eligibility. Until this time, information on deductible expenses, disability and assets was imbedded in a series of topical modules administered in different waves. Thus, the information had to be integrated across time and with the core. This integration presented conceptual and operational problems in developing food stamp eligibility measures in previous participation rate estimates, as discussed in the Appendix of Trippe and Doyle (1992).

The newly designed eligibility module meant that we no longer had to integrate shelter and child care expenses and asset information across time because they were all collected simultaneously in the new eligibility module. Also, we no longer had to impute out-of-pocket medical expenses because this information was collected in the new topical module. Finally, we no longer had to impute the sharing of shelter expenses among household members because this was now collected. Hence, the new waves contain most of the information needed to estimate food stamp eligibility: measures of monthly income; monthly Census household composition; assets, medical, child care, and shelter expenses; and disability status.

The more complete medical expense information and changes in the collection of vehicular assets may have contributed to the unexpectedly large increase in the number of eligible households

containing elderly persons, as discussed in Chapter IV. The estimated proportion of eligible households receiving the medical deduction increased from 8.2 percent in January 1988 to 13.8 percent in January 1989, and the amount of the estimated average medical deduction among eligible households more than doubled, from \$7.58 to \$18.28. Higher medical deductions are likely to increase the number of eligible elderly because their resulting net incomes are likely to be lower. The proportion of households with elderly passing the asset test increased from 61 percent to 65 percent in 1989.

Although the two waves contain most of the information needed to estimate food stamp eligibility, there were three operational problems to address in building the file due to the design of the eligibility topical module: (1) the topical module omitted questions on vehicular equity; (2) some individuals were present in the sample in January but not at the time of the interview; for those persons no information was collected on vehicles or deductible child care and shelter expenses; and (3) questions on reasons for receiving government transfers needed to determine food stamp disability status were not administered in the topical module. We corrected for these omissions as follows:

- We imputed vehicular equity for all cars reported by the members of the January sample.
- For those adults who were present in January but not present at the time of the interview, we imputed vehicular assets, equity, and deductible child care and shelter expenses.
- We merged selected data from Wave 1 in each panel to the person extracts in order to more accurately determine food stamp disability status.

A report by Mathematica Policy Research, Inc. (1992) provides more detail on how we developed the analysis file used to simulate the FSP.

## 2. An Assessment of the Eligibility Simulation

The procedure used to estimate the eligible population was designed to replicate the eligibility determination process for each household on the SIPP analysis file as closely as possible. In other words, we applied the program eligibility and benefit criteria outlined earlier to each household as if it had actually applied for food stamps.

The newly designed eligibility module contains more information on the variables necessary for determining FSP eligibility and benefits than ever before. The additional information on deductible expenses, disability, and assets--all in the same wave--means that many of the measurement problems of the previous SIPP files have been solved. However, some problems remain. All the simulation procedures described earlier cannot perfectly replicate the eligibility and benefit determination process mandated in the legislation, despite the improvements in the SIPP data, and the adjustments and enhancements that we made to the data. The specific discrepancies are as follows.

- **Unit definition.** Because SIPP does not measure the complete set of characteristics that are used to determine a food stamp unit (especially information on which dwelling-unit members customarily purchase and prepare food together), the simulated food stamp household is not the same as the unit determined by the food stamp caseworker. For this study, we used the reported program unit composition in Census households that reported FSP benefits to simulate the food stamp household. In other dwelling units with cash assistance, the food stamp household was equal to the cash assistance unit plus any spouses or related children under age 18 in the dwelling. In all other dwelling units, the simulated food stamp household was the same as the Census household. Landa (1987) and Doyle and Dalrymple (1987) discuss using SIPP to construct food stamp households.
- **Countable assets.** We used the financial, nonfinancial, and vehicular assets reported in SIPP to estimate countable assets according to program rules. However, SIPP does not explicitly provide all the measures necessary for this purpose, such as cash on hand and vehicular equity.
- **Gross income.** The measure of gross income used in this study is close to, but not precisely the same as, gross income reported to the food stamp caseworker. First, survey data on income and program participation, such as the data collected in SIPP, tend to be underreported. For example, the number of AFDC recipients in SIPP was only 79 percent of an independent estimate derived from administrative data; the number of recipients of unemployment compensation was 101 percent of the benchmark; and the number of recipients of veterans' benefits was 80 percent of the benchmark (U.S. Department of Commerce, 1986). Second, the definition

of income for purposes of food stamp eligibility is not precisely the same as income measured in SIPP. For example, the Food Stamp Program counts net self-employment earnings averaged over a period of up to one year, whereas SIPP measures self-employment draw. Third, as noted earlier, unit composition simulated with SIPP data differs from the caseworker's determination of the food stamp household, and, hence, aggregated income for the food stamp household may differ as well.

- **Net income.** Estimates of net income are more accurate in this file than in previous files because out-of-pocket medical expenses were collected for the first time (rather than imputed), and deductible expenses were collected at the same time as other eligibility information. Nonetheless, the measure of net income for this file is not exactly the same as net income measured by the caseworker because the SIPP definitions of shelter and dependent-care expenses differ slightly from the FSP definitions. For example, utility expenses are not disaggregated by use (heating, cooling, telephone) which affects the application of the standard utility allowance.
- **Disability status.** We relied on reported disability and reported income receipt as specified under the program to determine disability. Reporting and measurement errors in SIPP may somewhat distort the number of disabled individuals identified in this manner.
- **Measurement error.** Several forms of nonsampling errors affect the eligibility simulation, including the underreporting of income and program participation noted earlier, and the misclassification of benefit and income types. Of particular concern is the existence of persons who report participation in SSI or public assistance programs at the same time that they report income or assets in excess of the eligibility limits for those programs (that is, "seemingly-ineligible" participants).

Table A.1 shows the possible bias due to each of these measurement and reporting errors. The net result on estimates of the number of eligibles is uncertain. Underreporting of gross income will bias the estimates of eligible households upward, since more households will appear to have met the income limits than actually did. Also, under the automatic eligibility provision of the Food Security Act of 1985, households comprised entirely of "seemingly-ineligible" SSI or public assistance participants are treated as eligible for food stamps even though their income and assets exceed food stamp eligibility limits. To the extent that the income or asset measure of these seemingly ineligible (as opposed to the participation measure) is correct, the number of food stamp eligible households is overstated.

TABLE A.1

FACTORS THAT AFFECT THE SIMULATION OF FOOD STAMP  
ELIGIBILITY WITH SIPP, AND THE  
DIRECTION OF THE BIAS

Source of Error	Effect on Estimates of the Number of Eligibles
Unit Definition	Underestimate
Countable Assets	Overestimate
Gross Income	
Underreporting	Overestimate
Definition	Underestimate
Program participation	Underestimate of eligibles
underreporting and misreporting	participating in other programs
Net Income	Unknown
Disability Status	Underestimate
Measurement Error	Unknown
Inconsistencies between income and program participation	Overestimate

On the other hand, the imprecise measures of some types of expenses may bias the measurement of net income upward, thus reducing the estimate of the number of eligible households. Finally, the underrepresentation of some groups of individuals biases the estimates of eligibles downward. As illustrated earlier, the SIPP data seem to significantly underrepresent households that receive public assistance. These households form a large portion of the eligible and participating populations. Thus, some of the participation-rate estimates for these households exceed 100 percent.

Doyle (1990) analyzes the impact of selected measurement and reporting errors on measures of food stamp eligibility.