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**REACHING THE WORKING POOR
AND THE POOR ELDERLY:
REPORT ON LITERATURE REVIEW
AND DATA ANALYSES**

SECOND DRAFT

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CONTENTS

| Chapter | | Page |
|---------|---|------|
| | EXECUTIVE SUMMARY | xvii |
| I | INTRODUCTION | 1 |
| | A. AN OVERVIEW OF THE FOOD STAMP PROGRAM | 3 |
| | 1. Eligibility Criteria | 3 |
| | 2. Application Procedures | 4 |
| | 3. Food Stamp Benefits | 4 |
| | B. POTENTIAL REASONS FOR NONPARTICIPATION IN THE FSP ... | 5 |
| | 1. Informational Problems | 7 |
| | 2. Low Overall Benefit From Participating | 7 |
| | 3. Costs to Participating | 9 |
| | C. OBJECTIVES OF THE REPORT | 11 |
| | 1. A Literature Review | 12 |
| | 2. An Examination of the Characteristics of Working Poor and Poor Elderly Households and Their Relationship to FSP Participation .. | 13 |
| | 3. A Description of the Food Security of the Working Poor and Poor Elderly, and an Investigation of Its Relationship With FSP Participation | 13 |
| | 4. An Analysis of the Dynamics of the FSP Participation by the Working Poor and Poor Elderly | 14 |
| | D. CROSS-CUTTING ANALYTIC ISSUES | 15 |
| | 1. Determining FSP Participation and FSP Eligibility | 15 |
| | 2. Defining the Working Poor and Poor Elderly | 17 |
| | E. ORGANIZATION OF THE REMAINDER OF THE REPORT | 18 |
| II | A REVIEW OF THE LITERATURE RELATED TO FSP PARTICIPATION | 21 |
| | A. FSP PARTICIPATION RATES | 22 |
| | B. DIRECT EVIDENCE ON THE REASONS FOR NONPARTICIPATION | 24 |

CONTENTS (Continued)

| Chapter | | Page |
|----------------|--|-------------|
| II (Cont'd) | 1. Survey Evidence on FSP Nonparticipation | 24 |
| | 2. Survey Evidence on SSI Nonparticipation | 29 |
| | 3. Focus Group Evidence on FSP Nonparticipation | 30 |
| | C. STATIC ANALYSES OF FSP PARTICIPATION | 31 |
| | 1. Evidence on Participation in the FSP | 32 |
| | 2. Evidence on Participation in Other Programs | 36 |
| | D. DYNAMIC ANALYSES OF FSP PARTICIPATION | 39 |
| | 1. Participation Dynamics | 39 |
| | 2. Eligibility Dynamics | 42 |
| | 3. Evidence on "Trigger" Events | 44 |
| | E. PROGRAM FEATURES, OUTREACH, AND FSP PARTICIPATION . | 47 |
| | 1. Program Features That May Deter Participation | 47 |
| | 2. Lessons Learned From Outreach Efforts | 55 |
| | F. STIGMA AND FSP PARTICIPATION | 58 |
| | 1. Sources of Stigma From Program Participation | 58 |
| | 2. Impacts of Stigma on Program Participation | 63 |
| | 3. Measuring the Impact of Stigma on FSP Participation | 65 |
| | G. SUMMARY | 66 |
| | 1. Direct Evidence on the Reasons for Nonparticipation | 66 |
| | 2. Static Analyses of FSP Participation | 67 |
| | 3. Dynamic Analyses of FSP Participation | 67 |
| | 4. Program Features, Outreach, and FSP Participation | 68 |
| | 5. Stigma | 69 |
| III | CHARACTERISTICS ASSOCIATED WITH FSP PARTICIPATION | 71 |
| | A. DESCRIPTION OF THE DATA | 72 |
| | 1. The SIPP Data | 72 |
| | 2. Obtaining the Sample of Eligible Households | 73 |
| | 3. Some Data Issues | 74 |
| | 4. Sample and Subgroups for Analysis | 78 |

CONTENTS (Continued)

| Chapter | Page |
|--|-------------|
| III (Cont'd) | |
| B. CHARACTERISTICS OF FSP PARTICIPANTS AND ELIGIBLE NONPARTICIPANTS | 78 |
| 1. Poor Elderly and Working Poor Status | 80 |
| 2. Household Income and Economic Resources | 82 |
| 3. Receipt of Government Transfers | 84 |
| 4. Food Stamp Benefits | 86 |
| 5. Household Size and Composition | 88 |
| 6. Household Location | 93 |
| 7. Characteristics of the Household Reference Person | 95 |
| C. MULTIVARIATE ANALYSIS OF FSP PARTICIPATION | 103 |
| 1. Poor Elderly and Working Poor Status | 105 |
| 2. Household Income and Economic Resources | 107 |
| 3. Receipt of Government Transfers | 109 |
| 4. Food Stamp Benefits | 112 |
| 5. Household Size and Composition | 114 |
| 6. Household Location | 116 |
| 7. Characteristics of the Household Reference Person | 118 |
| D. SUMMARY | 124 |
| 1. Characteristics of Participants and Nonparticipants | 124 |
| 2. Independent Effects of Characteristics on Participation | 125 |
| 3. Differences in the Characteristics Affecting Participation Across Groups | 127 |
| IV | |
| FOOD SECURITY AND FSP PARTICIPATION | 129 |
| A. RELATIONSHIPS BETWEEN FOOD SECURITY AND FSP PARTICIPATION | 130 |
| B. MEASURING FOOD SECURITY | 131 |
| C. ANALYSIS OF THE SIPP EXTENDED WELL-BEING MODULE .. | 133 |
| 1. Description of the SIPP Extended Well-Being Module | 133 |
| 2. Food Sufficiency | 135 |
| 3. Number of Days Without Food | 140 |
| 4. Reasons for Food Scarcity | 141 |

CONTENTS (Continued)

| Chapter | Page |
|--|-------------|
| IV (Cont'd) | |
| D. ANALYSIS OF THE CPS FOOD SECURITY SUPPLEMENT | 143 |
| 1. Description of the CPS Food Security Supplement | 145 |
| 2. Food Sufficiency | 149 |
| 3. Other Indicators of Food Insecurity | 154 |
| 4. Reasons for Food Scarcity | 160 |
| 5. Food Expenditure | 162 |
| 6. Use of Other Food Assistance Programs | 165 |
| E. SUMMARY | 167 |
| 1. Poor Elderly Households: Food Security, Food Expenditure, and Use of Other Food Assistance Programs | 168 |
| 2. Working Poor Households: Food Security, Food Expenditure, and the Use of Other Food Assistance Programs | 169 |
| 3. Differences Between the Food Security of FSP Participants and Low-Income Nonparticipants | 170 |
| 4. Can Differences in Food Security Explain the Low FSP Participation by the Poor Elderly and Working Poor? | 170 |
| V | |
| THE DYNAMICS OF FSP PARTICIPATION | 171 |
| A. DESCRIPTION OF THE DATA | 172 |
| 1. The SIPP Panels | 172 |
| 2. Unit of Analysis | 173 |
| 3. FSP Participation, FSP Eligibility, and Subgroup Definitions ... | 173 |
| B. PATTERNS OF FSP PARTICIPATION AND ELIGIBILITY OVER TIME | 174 |
| 1. FSP Take-Up Rates | 174 |
| 2. FSP Participation and Eligibility Rates Over Varying Observation Periods | 175 |

CONTENTS (*Continued*)

| Chapter | Page |
|------------------------|--|
| V (<i>Cont'd</i>) | <ul style="list-style-type: none"> C. LENGTH OF FSP PARTICIPATION SPELLS AND RATES OF ENTRY INTO AND EXIT FROM THE FSP 179 <ul style="list-style-type: none"> 1. Length of FSP Participation Spells 179 2. Rates of Entry Into the FSP 183 3. Rates of Exit From the FSP 186 D. EVENTS THAT TRIGGER ENTRY INTO THE FSP 189 <ul style="list-style-type: none"> 1. Potential Entry Trigger Events 189 2. Analysis of Entry Trigger Events 192 E. EVENTS THAT TRIGGER EXIT FROM THE FSP 199 <ul style="list-style-type: none"> 1. Potential Exit Trigger Events 199 2. Analysis of Exit Trigger Events 201 F. SUMMARY 207 <ul style="list-style-type: none"> 1. The Working Poor 208 2. The Poor Elderly 209 |
| VI | <ul style="list-style-type: none"> SUMMARY 211 <ul style="list-style-type: none"> A. CHARACTERISTICS OF THE WORKING POOR AND POOR ELDERLY RELATED TO FSP PARTICIPATION 211 <ul style="list-style-type: none"> 1. General Household Characteristics 211 2. FSP Participation Rates 212 3. Food Security, Food Expenditure, and Use of Food Assistance Programs 212 4. Dynamics of FSP Participation 213 B. THE REASONS FOR LOW FSP PARTICIPATION BY THE WORKING POOR AND POOR ELDERLY 214 <ul style="list-style-type: none"> 1. Informational Problems 214 2. Low Overall Benefit from Participating 216 3. Costs to Participating 217 |

CONTENTS *(Continued)*

| Chapter | | Page |
|-----------------------|---|-------------|
| VI <i>(Cont'd)</i> | C. GAPS IN OUR KNOWLEDGE OF THE REASONS FOR LOW FSP PARTICIPATION BY THE WORKING POOR AND POOR ELDERLY | 218 |
| | REFERENCES | 221 |
| | APPENDIX A: COMPARISONS OF FSP ELIGIBILITY APPROXIMATIONS USING DIFFERENT INCOME SCREENS | A-1 |
| | APPENDIX B: FSP PARTICIPATION EQUATION: ESTIMATION METHODOLOGY AND COEFFICIENT ESTIMATES | B-1 |
| | APPENDIX C: COMPARISONS OF CHARACTERISTICS OF LOW-INCOME HOUSEHOLDS IN THE JANUARY 1992 SIPP, SIPP EXTENDED WELL-BEING MODULE, AND CPS FOOD SECURITY SUPPLEMENT | C-1 |

TABLES

| Table | | Page |
|--------|---|------|
| II.1 | FSP PARTICIPATION RATES: JANUARY 1992 | 23 |
| II.2 | PROPORTION OF APPLICANTS WHO COMPLETE EACH STAGE OF THE FSP APPLICATION PROCESS | 49 |
| II.3 | RESPONSES OF PARTICIPANTS AND LOW-INCOME NONPARTICIPANTS TO QUESTIONS DESIGNED TO ELICIT INFORMATION ABOUT STIGMA | 61 |
| III.1 | NUMBER OF FSP-ELIGIBLE HOUSEHOLDS BY FSP PARTICIPATION STATUS AND SUBGROUP | 79 |
| III.2 | PERCENT DISTRIBUTION OF POOR ELDERLY AND WORKING POOR HOUSEHOLDS | 81 |
| III.3 | HOUSEHOLD INCOME, ECONOMIC RESOURCES, AND GOVERNMENT TRANSFERS OF PARTICIPATION AND NONPARTICIPATION HOUSEHOLDS | 83 |
| III.4 | POTENTIAL FOOD STAMP BENEFITS OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS | 87 |
| III.5 | HOUSEHOLD SIZE AND COMPOSITION OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS | 89 |
| III.6 | COMPOSITION OF FSP-ELIGIBLE HOUSEHOLDS WITH ELDERLY . | 92 |
| III.7 | COMPOSITION OF FSP-ELIGIBLE HOUSEHOLDS WITH EARNERS . | 94 |
| III.8 | METROPOLITAN STATUS AND REGION OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS | 96 |
| III.9 | EDUCATION AND EMPLOYMENT STATUS OF THE HOUSEHOLD REFERENCE PERSON OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS | 97 |
| III.10 | AGE AND GENDER OF THE HOUSEHOLD REFERENCE PERSON OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS | 100 |
| III.11 | RACE AND ETHNICITY, AND MARITAL STATUS OF THE HOUSEHOLD REFERENCE PERSON OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS | 102 |

TABLES (Continued)

| Table | Page |
|--------------|--|
| III.12 | FSP PARTICIPATION: EFFECTS OF POOR ELDERLY AND WORKING POOR STATUS 106 |
| III.13 | FSP PARTICIPATION: EFFECTS OF HOUSEHOLD INCOME AND ECONOMIC RESOURCES 108 |
| III.14 | FSP PARTICIPATION: EFFECTS OF RECEIPT OF GOVERNMENT TRANSFERS 111 |
| III.15 | FSP PARTICIPATION: EFFECTS OF POTENTIAL FOOD STAMP BENEFITS 113 |
| III.16 | FSP PARTICIPATION: EFFECTS OF HOUSEHOLD SIZE AND COMPOSITION 115 |
| III.17 | FSP PARTICIPATION: EFFECTS OF METROPOLITAN STATUS AND REGION 117 |
| III.18 | FSP PARTICIPATION: EFFECTS OF EMPLOYMENT STATUS AND EDUCATION OF HOUSEHOLD REFERENCE PERSON 119 |
| III.19 | FSP PARTICIPATION: EFFECTS OF AGE AND GENDER OF HOUSEHOLD REFERENCE PERSON 121 |
| III.20 | FSP PARTICIPATION: EFFECTS OF RACE AND ETHNICITY, AND MARITAL STATUS OF HOUSEHOLD REFERENCE PERSON 123 |
| IV.1 | NUMBER OF LOW-INCOME HOUSEHOLDS BY FSP PARTICIPATION STATUS AND SUBGROUP 136 |
| IV.2 | DISTRIBUTION OF FOOD SUFFICIENCY 137 |
| IV.3 | DISTRIBUTION OF FOOD SUFFICIENCY BY HOUSEHOLD INCOME 139 |
| IV.4 | NUMBER OF DAYS WITHOUT FOOD 142 |
| IV.5 | REASONS FOR FOOD SCARCITY 144 |
| IV.6 | NUMBER OF LOW-INCOME HOUSEHOLDS BY FSP PARTICIPATION STATUS AND SUBGROUP 147 |

TABLES (Continued)

| Table | Page |
|--------------|--|
| IV.7 | DISTRIBUTION OF FOOD SUFFICIENCY 150 |
| IV.8 | IMPACT OF QUESTION STRUCTURE ON REPORTS OF FOOD SUFFICIENCY 152 |
| IV.9 | DISTRIBUTION OF FOOD SUFFICIENCY BY HOUSEHOLD INCOME 153 |
| IV.10 | INDICATORS OF FOOD SCARCITY EXPERIENCED IN PAST 30 DAYS 155 |
| IV.11 | COPING BEHAVIORS 157 |
| IV.12 | CONCERNS ABOUT FOOD SUFFICIENCY 159 |
| IV.13 | REASONS FOR FOOD SCARCITY: HOUSEHOLDS WITH INSUFFICIENT FOOD 161 |
| IV.14 | USUAL WEEKLY FOOD EXPENDITURE 163 |
| IV.15 | USE OF OTHER FOOD ASSISTANCE PROGRAMS 166 |
| V.1 | FSP TAKE-UP RATES 176 |
| V.2 | PARTICIPATION AND ELIGIBILITY RATES OVER DIFFERENT OBSERVATION PERIODS 178 |
| V.3 | LENGTH OF FSP PARTICIPATION, BY SUBGROUP 180 |
| V.4 | PROBABILITY OF ENTERING THE FSP IN A GIVEN MONTH, BY SUBGROUP 184 |
| V.5 | PROBABILITY OF EXITING THE FSP IN A GIVEN MONTH, BY SUBGROUP 187 |
| V.6 | DISTRIBUTION OF FSP ENTRY TRIGGER EVENTS: ALL PERSONS . 193 |
| V.7 | DISTRIBUTION OF FSP ENTRY TRIGGER EVENTS: PERSONS IN HOUSEHOLDS WITH EARNINGS 195 |
| V.8 | DISTRIBUTION OF FSP ENTRY TRIGGER EVENTS: PERSONS IN ELDERLY HOUSEHOLDS 197 |

TABLES *(Continued)*

| Table | | Page |
|--------------|---|-------------|
| V.9 | DISTRIBUTION OF FSP EXIT TRIGGER EVENTS: ALL PERSONS . . | 202 |
| V.10 | DISTRIBUTION OF FSP EXIT TRIGGER EVENTS: PERSONS IN HOUSEHOLDS WITH EARNINGS | 204 |
| V.11 | DISTRIBUTION OF FSP EXIT TRIGGER EVENTS: PERSONS IN ELDERLY HOUSEHOLDS | 206 |

FIGURES

| Figure | | Page |
|--------|---|------|
| I.1 | POTENTIAL REASONS FOR NONPARTICIPATION IN THE FSP | 6 |

EXECUTIVE SUMMARY

The Food Stamp Program (FSP) is designed to provide assistance to *all* financially needy persons. But a substantial number of those eligible for food stamps do not receive them. In January 1992, 31 percent of households eligible for food stamps did not participate in the program.

Most households that are eligible for food stamps but do not participate in the program fall into one of two groups: the working poor and the poor elderly. Working poor households are defined as households that have some earnings from employment but still meet the eligibility criteria for the FSP. Poor elderly households are defined as households that meet the eligibility criteria for the FSP and contain at least one person who is 60 years of age or older.

Overall, 69 percent of all FSP-eligible households participate in the FSP. In contrast, only 48 percent of working poor households and 34 percent of poor elderly households participate in the program.

The reasons for low participation in the FSP by the working poor and poor elderly must be understood in order to determine the appropriate policy response. If people choose not to apply for benefits because they do not need them, then the low levels of participation are not necessarily cause for concern. On the other hand, if aspects of the program and how it is administered deter people that need assistance from applying for or receiving benefits, then important program performance issues should be addressed.

The Reaching the Working Poor and Poor Elderly study was designed to increase our understanding of the reasons for low FSP participation by the working poor and poor elderly. The study has three phases: (1) a literature review and analysis of existing data; (2) focus group discussions with FSP participants and eligible nonparticipants in the two groups; and (3) the development and pretesting of a questionnaire to be administered to participants and eligible nonparticipants in the two groups. This report documents our findings from the first phase of the study.

The report has four main components: (1) a literature review, (2) an analysis of the characteristics of the working poor and poor elderly FSP-eligible households and the relationship of these characteristics to FSP participation using data from the January 1992 Survey of Income and Program Participation (SIPP), (3) an analysis of the food security of the working poor and poor elderly and its relationship to FSP participation using the SIPP Extended Well-Being Module and the April 1995 Current Population Survey (CPS), and (4) an analysis of the dynamics of FSP participation using the 1990 and 1991 SIPP panels.

POTENTIAL REASONS FOR LOW FSP PARTICIPATION

Potential reasons for low participation in the FSP can be classified into three groups:

- Informational problems

- A low overall benefit from participating
- High costs to participating

Informational problems include not knowing the program exists, knowing the program exists but not knowing how to apply for benefits, and misperceptions about the FSP-eligibility criteria.

Even with full knowledge about the program, FSP-eligible households will only apply for food stamps if they believe that the overall benefit from participating outweighs the costs. Four factors may reduce the overall benefit from FSP participation for the working poor and poor elderly: (1) being eligible for only a low benefit amount, (2) expecting that food stamps will be received for only a short period of time, (3) not being in need of food assistance, and (4) experiencing a delay in obtaining the food stamp benefits.

The flip side of the low overall benefit from participating is the high cost to participating. We identified four sets of costs associated with FSP participation: (1) the time, money, and hassle involved in applying for food stamps, (2) the time, money, and hassle involved in the issuance process, (3) problems using coupons or EBT, and (4) psychological costs, such as stigma, loss of privacy, and dislike of government programs.

SOME CHARACTERISTICS OF THE WORKING POOR AND POOR ELDERLY ASSOCIATED WITH FSP PARTICIPATION

General Household Characteristics

Working poor and poor elderly households differ in their demographic composition. Relative to all FSP-eligible households, working poor households are larger, more likely to have children, and have a more educated reference person. In contrast, poor elderly households, relative to all FSP-eligible households, are smaller, less likely to have children, and have a less educated reference person.

Working poor and poor elderly households do, however, share some economic characteristics. Relative to all FSP-eligible households, both working poor and poor elderly households:

- Have higher income as a percentage of the poverty threshold
- Are more likely to have assets
- Are eligible for lower food stamp benefits per person in the household

Each of these characteristics is related to low FSP participation by all FSP-eligible households.

Even if we control for a rich set of other demographic or economic characteristics, working poor and poor elderly households still have lower participation rates than other households. Hence, some of the reasons for low participation by these groups must be tied to factors that we cannot directly observe with SIPP data.

Food Security

Although not conclusive, most evidence suggests that the working poor are as food secure, if not slightly more food secure, than other FSP-eligible households. Between 56 and 63 percent (depending on the data source) of all working poor households report having enough food to eat of the kinds they want, compared with between 61 and 63 percent of all FSP-eligible households.

There is considerable evidence that the poor elderly are more food secure than all low-income households. Between 73 and 75 percent of poor elderly households report having enough food of the kinds they want.

FSP Participation Dynamics

The working poor and poor elderly exhibit very different patterns of FSP participation over time. The working poor exhibit a high turnover in FSP participation. They frequently move on and off food stamps and typically receive food stamps for only short spells. In contrast, the poor elderly exhibit a low turnover in FSP participation. They are less likely than other people to start receiving food stamps, but once on food stamps, they are less likely to leave the FSP. They typically receive food stamps for slightly longer spells than other people.

OUR FINDINGS ON THE REASONS FOR LOW FSP PARTICIPATION BY THE WORKING POOR AND POOR ELDERLY

Although by no means conclusive, the evidence suggests that many factors play a role in the low FSP participation of the working poor and poor elderly. We present evidence that all three broad categories of reasons for low participation--informational problems, a low overall benefit from participating, and high costs of participating--contribute to the low FSP participation of the poor elderly and the working poor. However, the relative importance of any one factor in explaining the low participation rates is probably not the same for each group.

Informational Problems

There is considerable evidence that misperceptions about FSP-eligibility criteria deter some FSP-eligible households, especially the working poor, from participating in the program. The evidence includes:

- When asked directly why they do not participate in the FSP in surveys and focus groups, a large proportion of people who were presumed to be eligible for food stamps replied that they thought they were ineligible. However, as these people were not determined to be eligible by food stamp caseworkers, some of these people may, in fact, have been ineligible for food stamps.

- The presence of earnings, the presence of assets, and home ownership are each negatively associated with FSP participation and are prevalent in working poor and poor elderly households. Earnings, assets, and home ownership are often perceived to automatically preclude FSP eligibility.
- Receipt of other forms of public assistance, such as SSI or AFDC, is positively associated with FSP participation. Households are more likely to learn about both their eligibility for the FSP and how to apply for food stamps if they are already in the welfare system.
- Successful outreach programs focus on providing information that dispels myths about FSP-eligibility.

Low Overall Benefit from Participating

A low monthly benefit amount and a lack of need for food stamps are two important factors that lower the overall benefit to FSP participation. Evidence suggests that this is an important reason for the low participation by the poor elderly, and to a lesser extent, the working poor.

- The greater food security of the poor elderly relative to other low-income households may indicate less need for food stamps.
- The amount of food stamp benefits for which a household is eligible is positively associated with FSP participation. Many working poor and poor elderly households are eligible for low food stamp benefits per person.
- In surveys, FSP-eligible nonparticipants who thought they were eligible for food stamps cited lack of need for food stamps as one of the two main reasons they did not participate. The poor elderly gave this reason slightly more frequently than other nonparticipants.
- Working poor households are typically eligible for food stamps for only short periods at a time.
- Receipt of other forms of public assistance is positively associated with FSP participation. Households that perceive that they do not need food stamps are also likely to perceive that they do not need other forms of assistance, this association is also consistent with the hypothesis that a perceived lack of need is a reason for low FSP participation.

Costs to Participating

Evidence suggests that the costs of FSP participation *do* discourage participation. However, these costs are probably only a contributing, rather than a major, reason for the low participation rates of the working poor and poor elderly. The evidence includes:

- In surveys and focus groups, administrative hassles and the stigma associated with the FSP was cited as a reason for nonparticipation by some, but not the majority of, respondents.
- Only about two-thirds of the persons who inquire about the FSP complete the application process. While some of the people who drop out of the process may have done so because they found that they were ineligible, others may have been deterred by the costs of the process itself.
- The costs of applying for food stamps are quite large. On average, it takes nearly five hours to complete the application process, and applicants incur \$10.40 in money costs (Bartlett et al. 1992). However, we have no strong evidence on whether these costs deter participation.
- Many successful outreach programs, especially for the elderly, provide one-on-one assistance throughout the application process, suggesting that the application process discourages participation by the elderly.
- Receipt of other forms of public assistance is positively associated with FSP participation. Households can coordinate the application process for AFDC and SSI. Hence, the positive relationship between FSP participation and AFDC and SSI participation may suggest that removing some of the costs to applying for food stamps encourages participation. This association is also consistent with the hypothesis that stigma deters participation, since households that are deterred by stigma from applying for one form of public assistance will also be deterred from applying for food stamps.

GAPS IN OUR KNOWLEDGE OF THE REASONS FOR LOW PARTICIPATION BY THE WORKING POOR AND POOR ELDERLY

This report has suggested some potential reasons for low FSP participation by the working poor and poor elderly. However, the evidence is far from conclusive. At this point, too many questions remain to make any recommendations on the appropriate policy response to low FSP participation by the working poor and poor elderly.

We identify three main gaps in our knowledge of the reasons for low FSP participation:

1. *We do not have a complete understanding of the relative importance of each reason for low FSP participation by all FSP-eligible households.* We have even less of an understanding of their relative importance for the working poor and poor elderly.
2. *It is difficult to tease out the underlying reasons for low FSP participation.* Many of the reasons given for nonparticipation are consistent with multiple underlying reasons, with the appropriate policy response differing accordingly.

3. ***Surveys identify reasons for low FSP participation that are often too broad for policy purposes.*** For example, direct survey evidence suggests that many FSP-eligible households think they are ineligible for food stamps. However, it is important from a policy perspective to understand *why* some households believe that their assets or income are too high to be eligible for food stamps.

One reason for these gaps in our knowledge is that much of the evidence is indirect--characteristics of households that participate in the FSP are compared with those of FSP-eligible households that do not participate. The inferences that can be made from indirect evidence are limited; we can only speculate on the reasons for the associations between household characteristics and FSP participation. And, in many cases, the associations are consistent with more than one reason for nonparticipation.

Another reason for these gaps is that the direct evidence we *do* have on the reasons for nonparticipation is weak. There are three main reasons for this:

1. ***The questions are too broad and open-ended.*** Most surveys ask nonparticipants broad questions that elicit broad responses that are consistent with many explanations for nonparticipation.
2. ***The sample sizes in the surveys are too small.*** The small sample sizes preclude making many statistically significant inferences about working poor and poor elderly households.
3. ***An accurate determination of FSP eligibility cannot be made with the data available from these surveys.*** This is especially problematic because perceived ineligibility is a reason frequently given for nonparticipation.

These gaps in our knowledge and weaknesses of existing evidence highlight the importance of conducting focus groups and developing the questionnaire on the reasons for nonparticipation by the working poor and poor elderly in this study.

I. INTRODUCTION

The Food Stamp Program (FSP) is the cornerstone of America's overall strategy for ensuring that all Americans have enough to eat. By increasing the food purchasing power of low-income persons, the FSP helps them obtain and maintain a nutritious diet. Households participating in the FSP receive coupons or a "debit" card that can be used to purchase food from authorized dealers. The FSP is the largest of the domestic nutrition assistance programs administered by the Food and Consumer Service (FCS) of the U.S. Department of Agriculture (USDA). It served approximately 26.6 million persons per month in fiscal year 1995, at a total annual cost of \$25 billion (Food Stamp Program Operations Data 1996).

The FSP is designed to provide assistance to *all* financially needy persons. Generally, any person or group of persons living together and sharing food purchases and preparation whose income and assets in a given month fall below specified limits are eligible for food stamps. But a substantial number of those eligible for food stamps do not receive them. Recent estimates suggest that, in January 1992, 31 percent of households and 26 percent of persons eligible for food stamps did not participate in the program (Trippe and Sykes 1994).

Most households that are eligible for food stamps but do not participate in the program fall into one of two groups: the working poor and the poor elderly.¹ Working poor households are defined as households that have some earnings from employment but still meet the eligibility criteria for the FSP. Poor elderly households are defined as households that meet the eligibility criteria for the FSP and contain at least one person who is 60 years of age or older. Over two million working poor households

¹The two groups are not mutually exclusive. Some households that contain an elderly person also have earnings.

are eligible for food stamps but do not receive them.² This group accounts for nearly half of all FSP-eligible nonparticipating households. Only about one-half of all working poor, FSP-eligible households participate in the program. Over three million elderly households are eligible for food stamps but do not receive them, accounting for about 70 percent of all FSP-eligible nonparticipating households. Only about one-third of all elderly FSP-eligible households participate in the FSP.

Hard evidence on the reasons for low participation in the FSP by the working poor and poor elderly is scarce. However, the reasons for low participation must be understood in order to determine the appropriate policy response. If these households choose not to apply for benefits because they do not need them, then the low levels of participation are not necessarily cause for concern. However, if aspects of the program and how it is administered deter households that need assistance from applying for or receiving benefits, then important program performance issues should be addressed.

The Reaching the Working Poor and Poor Elderly study was designed to increase our understanding of nonparticipation by these two groups. The study has three broad objectives:

1. To obtain a better understanding of why the working poor and poor elderly are less likely than other groups to participate in the FSP
2. To explore whether reasons for nonparticipation among the working poor and poor elderly differ from the reasons for nonparticipation among other groups
3. To explore whether improved information or program changes could increase participation by the working poor and poor elderly

To meet these objectives, the study has three distinct but interrelated phases: (1) a literature review and analysis of existing data; (2) focus group discussions with FSP participants and eligible nonparticipants in the two groups; and (3) the development and pretesting of a questionnaire to be administered to

²The figures presented in this paragraph and the next refer to January 1992 and are from Trippe and Sykes (1994).

participants and eligible nonparticipants in the two groups. This report describes the results of the literature review and data analysis conducted in the first phase of the study.

This introductory chapter provides a context for the report. We begin in Section A with a brief description of the FSP. Section B discusses the possible explanations for low participation by these groups. The overall objectives of the study and the research questions addressed by the report are discussed in Section C. Section D discusses some cross-cutting analytic issues. The organization of the remainder of the report is described in Section E.

A. AN OVERVIEW OF THE FOOD STAMP PROGRAM

FSP benefits are a federal responsibility; administrative costs are shared by federal, state, and local governments. Eligibility standards and benefit levels for the program are set by Congress, and FCS provides broad policy guidance. State and local governments directly administer the program on a day-to-day basis.

1. Eligibility Criteria

The Food Stamp Act of 1977, as amended, establishes uniform national eligibility standards for the FSP and defines the food stamp beneficiary unit, the "household." Generally, individuals who live in a residential unit and purchase and prepare food together constitute a household. However, in some circumstances, elderly persons who need care from relatives can be counted as a food stamp household apart from the relatives with whom they eat.

To be eligible for food stamps, most households are subject to three financial eligibility tests. First, monthly *gross* counted income must not exceed 130 percent of the federal poverty level. Second, monthly *net* counted income (that is, gross income minus allowable deductions) must not exceed 100 percent of the federal poverty level. (Households with earnings can deduct 20 percent of their earned income in calculating net income.) Third, countable assets must not exceed \$2,000. Households are

exempt from these three tests if all household members receive Aid to Families with Dependent Children (AFDC), State General Assistance (GA), or Supplemental Security Income (SSI).

Households that contain an elderly person (defined as 60 years or older) face less stringent financial tests.³ These households do not need to meet the gross income eligibility test. In calculating net income, elderly households can deduct out-of-pocket medical expenses over \$35 and *all* shelter expenses that exceed 50 percent of counted income.⁴ And elderly households can have countable assets of as much as \$3,000.

2. Application Procedures

Applications for food stamps can be made at local FSP offices, which are usually located at the county level in rural areas and at the subcounty level in more densely populated urban areas. Most individuals are required to appear in person at their local office. However, elderly and disabled persons and persons who have difficulties getting to the office can designate an authorized representative to go to the office or be interviewed by telephone or in their homes. Households that consist of only SSI recipients can apply for food stamps at the Social Security Administration office. Persons who apply for AFDC can apply for food stamps at the same time.

3. Food Stamp Benefits

Food stamp benefits are issued monthly. The benefit amount is based on household size and income net of certain deductions. A household with no cash income receives the maximum food stamp benefit. This maximum is based on the Thrifty Food Plan, a set of minimum food expenditures needed to maintain an adequate diet. A household with earnings or other income receives the maximum food

³This is also true for households that contain a disabled person.

⁴A limit is set on deductions of shelter expenses by households that do not contain an elderly or disabled person.

stamp benefit minus 30 percent of counted income. Except for the initial month of participation, there is a minimum guaranteed monthly benefit of \$10 for one- or two-person households.

Most households are issued benefits in the form of coupons. The coupons can be issued in one of three ways: (1) sent to participants through the mail, (2) delivered directly over the counter at welfare offices, or (3) provided by intermediaries (such as banks or check-cashing establishments) when the participant shows an Authorization to Participate (ATP) card. A growing proportion of food stamp benefits are provided through electronic benefit transfer (EBT) systems. Under EBT, the participant receives a "debit" card, similar to a bank card, and the participant's electronic food stamp account is debited electronically after food is purchased at authorized retail stores.

B. POTENTIAL REASONS FOR NONPARTICIPATION IN THE FSP

There are many potential reasons for nonparticipation in the FSP by households eligible for benefits. In this section, we describe these potential reasons as comprehensively as possible, emphasizing the reasons for low participation by the working poor and poor elderly. A list of the potential reasons is presented in Figure I.1. A summary of the evidence on the relative importance of each of these reasons is provided in Chapter VI.

We divide the potential reasons for nonparticipation in the FSP into three groups: (1) informational problems, (2) a low overall benefit from participating in the program, and (3) high costs to participating. These reasons are closely related. For example, if participating in the program were cost-less, only zero (or negative) benefits would deter eligible households from participating if they knew about the program. Hence, it is the benefits *relative* to the costs that affect participation. Moreover, a household might invest more in learning about the program if the benefits of participating were higher relative to the cost. It is possible that the working poor and poor elderly have low participation rates in the FSP for all three reasons.

FIGURE I.1

POTENTIAL REASONS FOR NONPARTICIPATION IN THE FSP

A. INFORMATIONAL PROBLEMS

1. Lack of Knowledge About the Program
2. Lack of Knowledge About How to Apply for Food Stamps
3. Perceived Ineligibility
 - Misperceptions about eligibility rules, in particular those concerning expenses, assets, and earnings
 - Unawareness that eligibility status may have changed since last determination
 - Told incorrectly that they were ineligible by FSP staff or others

B. LOW OVERALL BENEFITS FROM PARTICIPATING

1. Low Monthly Benefit Amount
2. Short Expected Time on Program
3. Lack of Need for Food Stamps
4. Delay in Obtaining Benefits

C. COSTS TO PARTICIPATING

1. Time, Money, and Hassle Involved in Applying for Food Stamps
 - Problems in getting to the FSP office
 - Problems in getting time from work to go to the FSP office
 - Expenses involved in going to the office, including transportation, babysitting, and/or foregone wages
 - Problems in completing the application form
 - Time involved in the application process
 - Perception of discourteous staff or unpleasant offices
 - Time, money, and hassle involved with providing necessary documentation
2. Time, Money and Hassle Involved in the Issuance Process
 - Problems in getting to the place at which coupons (EBT card) are issued
 - Time spent waiting for coupons
 - Problems replacing lost or damaged coupons or EBT cards
3. Problems Using Coupons or EBT
4. Psychological Costs
 - Stigma
 - Dislike of loss of privacy
 - Dislike of government
 - Incorrect perception that participation reduces the benefits available to others

1. Informational Problems

Not knowing that the FSP exists is one obvious explanation for nonparticipation. However, a related and more likely reason is that a person has heard about the program but does not know how to apply. Poor eyesight, limited literacy, and language problems may prevent persons from learning about the program and the application process. Even once an FSP office is contacted, confusion about the steps in the application process may discourage applicants from completing the application procedures.

Some FSP-eligible households may incorrectly perceive that they are ineligible for food stamps. Some may not understand the eligibility rules; others may have been told by relatives or friends that they were ineligible. Some households that once applied for food stamps and were determined ineligible may be unaware that, because their circumstances or the eligibility rules themselves have since changed, they are now eligible. Some eligible nonparticipants even may have been told incorrectly by a caseworker, outreach, or other social-service worker that they were ineligible.

The working poor and poor elderly may be particularly prone to misperceptions about eligibility. The working poor may believe that because they have earnings, they are ineligible for food stamps. The elderly may not realize that special rules apply to their households. In particular, they may incorrectly think that they face the same asset test as households that do not contain an elderly or disabled person. Or they may be unaware that an elderly household with gross income greater than the poverty threshold may still receive food stamps if, for example, household members have high medical costs. In addition, elderly persons may have greater difficulties understanding the application process and the FSP eligibility rules because of impaired cognitive functioning.

2. Low Overall Benefit From Participating

Even with full knowledge about the program, FSP-eligible persons will only apply for food stamps if they believe that the overall benefit from participating outweighs the costs. We identified four factors that may reduce the overall benefit of participating in the FSP for the working poor and poor elderly:

(1) low monthly benefit amounts, (2) the expectation that food stamps will be received only for a short time, (3) lack of need for food stamps, and (4) delay in obtaining benefits.

a. Low Monthly Benefit Amount

As a household's income increases, the amount of FSP benefits for which the household is eligible decreases. FSP-eligible households with income near the eligibility cutoff may only be eligible for a monthly benefit of \$10 or less. Many working poor and elderly households are eligible for only a low benefit relative to the maximum benefit for their household size. Working poor households, by definition, have earnings, which reduce the amount of benefit for which they are eligible. The elderly often have Social Security income, which reduces their benefit amount.

b. Expectation That Time on the Program Will Be Short

If a household expects to be receiving benefits for only a short period of time, the expected total amount of food stamp benefits may be low relative to the one-time costs of applying. This situation may be especially prevalent among the working poor, who often have fluctuating incomes and, as a result, are eligible for only a few months at a time. For example, they may be eligible for food stamps only when they are between jobs or have temporary dips in their income because "business is bad" that month.

c. Lack of Need for Food Stamps

Some households may perceive that they do not need food stamps and hence do not see as much value in participating as other FSP-eligible households might. It is unclear why households with similar incomes have different perceptions about their need for assistance. It may be that some households with the same income actually have differing resources for meeting food needs. For example, some households may have lower housing or medical costs. Other households may have access to other sources of food assistance, such as home-based meal programs for the elderly. Larger households, by

buying in large quantities, may be able to buy more food per dollar. The working poor may perceive that their need for food assistance is only temporary, disappearing when they can increase their earnings.

d. Delay in Obtaining Benefits

Households do not receive any coupons (or an EBT card) until the application process is completed. Unless the household is eligible for expedited service, benefits may not be received until several weeks after the application was filed. (Eligibility workers have 30 days to process nonexpedited service cases.) For many households that feel they require food assistance immediately, this wait for benefits may deter them from applying.

3. Costs to Participating

The flip side of the overall benefit from participating is the cost to participating. We identified four sets of costs associated with participating: (1) time, money, and hassle involved in applying for food stamps, (2) time, money, and hassle involved in the issuance process, (3) problems using coupons or EBT, and (4) psychological costs. It may be that some FSP-eligible households are deterred from participating because they *think* they will incur these costs. This perception may be based on prior experience of participating in the program.

a. Time, Money, and Hassle Involved in Applying for Food Stamps

Although no charge is levied for applying for food stamps, applicants can incur both monetary and time costs, as well as hassles during the application process. Some of these costs are related to physically getting to the office. Public transportation to the office may be nonexistent, or the applicant may live some distance away from the office, especially in rural areas. The elderly, especially those with disabilities or health problems, may have difficulties walking to the office or using public transportation. Some offices may be perceived as being in dangerous areas. Some households may

have problems finding child care for the time they are at the food stamp office. The working poor may find it difficult to take the time off work to go to the office and may have to forego some pay for the time spent away from work.

Other costs occur once the applicant is at the office. The applicant may have to spend significant amounts of time standing in line and waiting to be interviewed. Application forms may be long and complicated. The applicant may have difficulties completing the application materials because of poor eyesight, limited literacy, language problems, or impaired cognitive functioning. In addition, FSP offices may not be pleasant places in which to spend time, and staff may be perceived as discourteous.

Still other costs are related to the requirement that applicants provide documentation to verify their identity, citizenship, Social Security number, income, and resources. Households with earnings must provide pay stubs and employers' names and telephone numbers. Obtaining and copying these documents may be difficult, time-consuming, and relatively expensive.

b. Time, Money, and Hassle Involved in the Issuance Process

Once a household is certified for food stamps, additional costs may be associated with the issuance of food stamp benefits. Some participants must pick up their coupons in person, necessitating monthly trips to the food stamp office. Participants with ATP cards must go to an issuance location. Participants may also need to wait in line to obtain their coupons. Further trips and waiting time may be required if coupons are lost or damaged. These additional trips may be especially problematic for the working poor and poor elderly for the same reasons it is difficult for these groups to get to the FSP office to apply.

c. Problems Using Coupons or EBT

Problems using coupons or EBT may also deter participation. If local food stores do not accept food stamps, participants may have to go to another, less convenient, store to use coupons. Participants

may have security concerns about carrying coupons. EBT may create other problems, including using the card if the computer is running slowly or not working, remembering the personal identification number (PIN) that must be used with the card, keeping track of the account balance, and problems arising when other persons shop for the participant. Finally, working poor and poor elderly households may dislike the inability to purchase nonfood items with the coupons or EBT card.

d. Psychological Costs

Finally, there are some psychological costs to participating. Participants may feel embarrassed and humiliated as a result of using food stamps. Receiving any form of welfare is generally viewed as stigmatizing. Food stamps may be especially so because the coupons (and to a lesser extent, an EBT card) are visible to store workers and other customers. It is often stated that elderly persons particularly feel a stigma of participating in the FSP. Working persons also may have a particular distaste for welfare because of the embarrassment they would feel if coworkers were to discover they were receiving food stamps.

When applying for food stamps, applicants must provide details about their income, assets, expenses, and household composition and eating arrangements. Some applicants may dislike the associated loss of privacy. A general dislike and distrust of government is also sometimes cited as a reason that some eligible persons do not apply for food stamps.

Finally, nonparticipants sometimes state that they do not participate because others need food stamps more. Hence, even though the FSP is an entitlement program, some people incorrectly believe that by receiving food stamps they deprive others of food assistance.

C. OBJECTIVES OF THE REPORT

This report describes the results of the literature review and data analysis conducted in the first phase of the Reaching the Working Poor and Poor Elderly study. The main objective of the report is

to increase our understanding, based on existing literature and data, of the reasons for nonparticipation by the working poor and poor elderly. What does the literature tell us about the reasons for nonparticipation in the FSP? What can we learn by analyzing existing data sources on the working poor and poor elderly? By identifying the limitations of existing data for addressing issues related to nonparticipation by the working poor and poor elderly, it will also suggest topics for the focus group discussions and proposed questionnaire that comprise later phases of this study.

This first phase of the study consists of four main components: (1) a literature review, (2) an analysis of the characteristics of working poor and poor elderly FSP-eligible households and the relationship of these characteristics to FSP participation, (3) an analysis of the food security of the working poor and poor elderly and its relationship to FSP participation, and (4) an analysis of the dynamics of FSP participation by the working poor and poor elderly.

1. A Literature Review

The literature on the reasons for low FSP participation by the subgroups of interest is extremely sparse. Only a few studies examine the reasons for nonparticipation by the elderly (Blanchard et al. 1982, Hollenbeck and Ohls 1984, and Ponza and Wray 1990), and we know of no study that focuses on the reasons for nonparticipation by the working poor. Hence, we cast a broader net and review the literature related to all FSP-eligible households and to other assistance programs, including SSI, AFDC, and the Earned Income Tax Credit. More specifically, we summarize six components of the literature:

1. ***Estimates of Participation Rates.*** We summarize the best available estimates of FSP participation rates.
2. ***Direct Evidence on the Reasons for Nonparticipation.*** We summarize research based on surveys that ask people directly why they do not participate in a program.
3. ***Characteristics Associated With FSP Participation.*** We summarize previous research on the characteristics of FSP-eligible households and their relationship to FSP participation.

4. ***Analyses of the Dynamics of FSP Participation.*** We summarize our earlier research on the patterns of program participation over time and the reasons households decide to enter and leave a program.
5. ***Studies of the Operations of the FSP and Outreach Programs.*** We summarize the research on the types of problems that may arise in applying for, receiving, and using food stamps. We also discuss lessons learned from successful outreach programs.
6. ***Evidence on Stigma.*** We summarize both the sociology and economics literature on the existence of and reasons for stigma and discuss the measurement of stigma.

2. An Examination of the Characteristics of Working Poor and Poor Elderly Households and Their Relationship to FSP Participation

In this part of the study, we examine the characteristics associated with participation in the FSP.

Our analysis addresses the following research questions:

1. How do the characteristics of FSP participants differ from those of FSP-eligible nonparticipants--among all FSP-eligibles? among the working poor? among the poor elderly?
2. What economic and demographic characteristics significantly influence participation in the FSP? And, do these characteristics explain the low participation by the working poor and the poor elderly?
3. Does the influence of these economic and demographic characteristics on participation differ for the working poor, the poor elderly, and FSP-eligibles in general?

Much of this analysis consists of comparing the characteristics of nonparticipants to participants. In addition, we use multivariate analysis to identify the independent effect of characteristics on participation. To conduct the analysis, we use data from the Survey of Income and Program Participation (SIPP) for the month of January 1992.

3. A Description of the Food Security of the Working Poor and Poor Elderly, and an Investigation of Its Relationship With FSP Participation

Food security describes the availability of nutritionally adequate and safe food acquired in socially acceptable ways. *Food insecurity* is the absence of food security. It is a broad concept that includes

not only hunger, but also other conditions such as anxiety about having enough food, having to eat only a few kinds of low-cost foods, having to borrow money for food, or having to visit a soup kitchen. In this analysis, we describe the food security of poor elderly and working poor households that are eligible for food stamps and examine the relationship between food security and participation in the FSP. We address the following four research questions:

1. How food secure are working poor and poor elderly households?
2. How does the food security of working poor and poor elderly households compare with the food security of other households that are eligible for food stamps?
3. How does the food security of households that participate in the FSP compare with that of households that do not participate in the program?
4. How do expenditures on food and use of other food assistance programs by the working poor and poor elderly compare with those of other households that are eligible for food stamps?

This analysis is based on two sources of food security data: (1) the SIPP Extended Well-Being Module administered in Wave 6 of the 1991 SIPP panel and Wave 3 of the 1992 SIPP panel; and (2) the April 1995 Food Security Supplement of the Current Population Survey (CPS).

4. An Analysis of the Dynamics of the FSP Participation by the Working Poor and Poor Elderly

While most of our analysis consists of examining the characteristics and food security of the working poor and poor elderly at *one point of time*, in this part of the study we examine the behavior of the working poor and poor elderly *over time*. Our analysis addresses five research questions:

1. What are the patterns over time of FSP participation and eligibility of the working poor and poor elderly and how do they compare with the patterns of FSP participation and eligibility of other people?
2. Do the FSP participation spells of the working poor and poor elderly differ in length from the FSP participation spells of other FSP participants?

3. How do the rates of entry into and exit from the FSP of the working poor and poor elderly differ from the FSP entry and exit rates of other people?
4. What events “trigger” entry into the FSP by the working poor and poor elderly and are they different events than those that trigger entry into the FSP by other people?
5. What events “trigger” exit from the FSP by the working poor and poor elderly and are they different events than those that trigger exit from the FSP by other people?

This analysis is based on a panel of SIPP data, covering the period October 1989 to August 1993.

Using a panel survey, in which the same households are interviewed regularly over a period of time, allows us to examine people’s behavior over time.

D. CROSS-CUTTING ANALYTIC ISSUES

Two key issues arise in each of the data analyses discussed in this report: the determination of FSP participation and FSP eligibility, and the definitions of working poor and poor elderly.

1. Determining FSP Participation and FSP Eligibility

Our underlying approach to each analysis is to compare FSP participants with FSP-eligible nonparticipants. This means that we must determine which households participate in the FSP and which are eligible for the program.

Each of the four data sets used in this study contains an indication of whether the household reported receiving food stamps in a given month. We use this information as our measure of participation. However, estimates of the number of participants derived from FSP administrative data are much higher than the number of participants derived from household survey data, suggesting that program participation is underreported in the survey data. For example, 22 percent fewer households report FSP participation in SIPP than in program operations data in January 1992 (Trippe and Sykes 1994). Thus, we acknowledge that some of the households we count as nonparticipants will actually be FSP participants.

A comparison of administrative data and SIPP shows that the underreporting of participation is less severe for the poor elderly and working poor households. Thus, estimates of the proportion of FSP participants that are poor elderly and working poor made using survey data are probably biased upward. Conversely, the proportion of FSP-eligible nonparticipants that are poor elderly and working poor made using survey data are probably biased downward. However, unless the underreporting of FSP participation is also correlated with other factors used to explain participation (such as other household characteristics or food security), the underreporting will not bias our findings about the reasons for nonparticipation.

Replicating the complex FSP eligibility determination process requires detailed information on household income, assets, expenses, and composition. No household survey contains all this information. However, the program eligibility modules of the SIPP, administered in Waves 4 and 7, contain more of the information necessary for determining eligibility than any other survey. Hence, the determination of eligibility based on these data is fairly accurate. These data are used to determine eligibility for our analysis of the characteristics associated with FSP participation.

The SIPP Well-Being Module, however, is not administered in Waves 4 and 7 and so it does not contain any information on assets or expenses. Hence, for the analysis of these data, we use only a simple income eligibility screen of 130 percent of the official poverty threshold to determine FSP eligibility. As described in Appendix A, this could overestimate the number of households eligible for food stamps by more than 20 percent.

The April Food Security Supplement of the CPS also does not contain any asset or expense information. And it has four further drawbacks for determining FSP eligibility: (1) it contains information on only annual income; (2) income is only reported within bands of \$2,499 or more; (3) income is likely to be underreported because the CPS asks for total income rather than for each source of income separately; and (4) income is reported only for the family, not for everyone who lives in the

household. When analyzing these data, we determine a household to be eligible for food stamps if its average monthly income (using the lower end of the income band) is less than 130 percent of the poverty threshold. We expect that this overestimates the number of households that are eligible for food stamps.

Because we use a uniform set of rules to determine eligibility regardless of participation status, we do not expect that errors in eligibility determination will bias our comparisons of FSP participants and FSP-eligible nonparticipants.⁵

The SIPP panel used to analyze the dynamics of FSP participation has asset and expense information for only those months in which the program eligibility modules were administered. For the months in which this information is missing, we imputed household net income and assets. This led to errors in our FSP-eligibility determination, especially for those households that experienced recent changes in income, expenses, or assets.

Underestimating the number of participants and overestimating the number of eligible households each lead to an underestimate of FSP participation rates. Hence, the participation rates implicit in the number of FSP-eligible households and the number of participating households used in our data analyses underestimate the true participation rate. More accurate estimates of FSP participation rates, made by Trippe and Sykes (1994), are reported in Chapter II.

2. Defining the Working Poor and Poor Elderly

In this study, the working poor are defined as households that have earnings *and* are eligible for food stamps in the same month. Our definition works easily when we use SIPP data, which contain information on monthly earnings. However, the April CPS contains information on employment only for the previous week. Hence, when we use CPS data, we define working poor households as those

⁵We do not include in our samples of FSP-eligible households those households that we determine ineligible but that report receiving food stamps.

that worked in the week prior to the interview and were eligible for food stamps in the previous month. We, therefore, do not count as working poor, those households in the CPS data that did not work in the week prior to the interview but did work in other weeks in that month.

Poor elderly households are defined as households that contain at least one person who is 60 years or older and that are eligible for food stamps. This age cutoff was chosen because it corresponds to the definition of elderly used by the FSP in determining eligibility. This definition of poor elderly is easy to implement with both SIPP and CPS data.

It should be noted that working poor and poor elderly households are not mutually exclusive. Households eligible for food stamps may have earnings and also contain an elderly person.

E. ORGANIZATION OF THE REMAINDER OF THE REPORT

The remainder of the report is organized into four chapters. Chapter II reviews the literature relevant to nonparticipation in the FSP. Chapter III describes our comparisons of the characteristics of the FSP participants and eligible nonparticipants and presents the results of our multivariate analysis of the characteristics associated with FSP participation. Chapter IV describes the food security and food expenditure of the working poor and poor elderly, and their use of other assistance programs. It also discusses the relationship of food security to participation in the FSP. Chapter V examines the dynamics of FSP participation of the working poor and poor elderly, focusing on the events that trigger entry into and exit from the FSP. A summary of this report and a discussion of the remaining gaps in our knowledge of the reasons for nonparticipation by the working poor and poor elderly are provided in Chapter VI. Appendix A compares the approximation of FSP eligibility made using different income screens with that made using a complex microsimulation model. Appendix B discusses the probit models estimated in Chapter III and presents the estimated coefficients and standard errors of these models. Appendix C presents the characteristics of households in the SIPP Well-Being Module

and the CPS Food Security Supplement and compares them with the characteristics of households in the January 1992 SIPP.

II. A REVIEW OF THE LITERATURE RELATED TO FSP PARTICIPATION

This chapter reviews the literature related to reasons for nonparticipation in the FSP. Unfortunately, the literature directly related to reasons for nonparticipation in the FSP by the working poor and poor elderly is extremely sparse. Hence, we cast a broader net and review literature related to FSP participation by other demographic groups and to participation in other programs. The programs covered in our review include the Supplemental Security Income (SSI) program--the main assistance program for the poor elderly other than the FSP--the Earned Income Tax Credit (EITC)--a program specifically for the working poor--and Aid to Families with Dependent Children (AFDC).¹

Section A presents estimates of the rates of participation in the FSP by the working poor and poor elderly. Section B discusses the *direct* evidence on the reasons for nonparticipation in the FSP and other assistance programs collected when nonparticipants are asked directly why they do not participate. Section C covers the literature that relates program participation to household characteristics at one point in time. Section D reviews the literature on the dynamics of program participation, including a discussion of the pattern of program participation over time and the reasons for entering and leaving the program. Section E presents the evidence on the reasons for low participation collected in studies of the operation of the FSP and discusses the lessons learned from outreach efforts. Section F summarizes the literature on the stigma associated with FSP participation and discusses the measurement of stigma. Section G summarizes what we learn from the literature review.

¹Even though AFDC is not targeted at either of the groups of interest in this study, we include it in our review because the literature on AFDC participation is relatively large, FSP participation is strongly correlated with AFDC participation, and some of the reasons for nonparticipation may be comparable across programs.

A. FSP PARTICIPATION RATES

The *FSP participation rate* is the proportion of those eligible for food stamps that actually participate in the program. As context for the rest of the report, this section presents estimates of FSP participation rates from other studies.

Trippe and Sykes (1994) provide the best available estimates of FSP participation rates. Table II.1 reproduces their estimates of *household* participation rates--the proportion of FSP-eligible households that participate in the program--for January 1992. For the total count of participants, Trippe and Sykes used a census of benefit issuance, called the Food Stamp Program Summary of Operations. But because these data do not include the characteristics of households, Trippe and Sykes estimated the proportion of total FSP participants having specific characteristics on the basis of a sample of FSP case records from the FSP Integrated Quality Control System (IQCS).

As no records are available on the number of households eligible for food stamps, this number must be estimated. Trippe and Sykes (1994) estimated the number of FSP-eligible households by replicating the FSP estimation process using the MATH[®] microsimulation model² and data from the Survey of Income and Program Participation (SIPP). This database contains most of the income, asset, expense, and household composition information necessary to determine FSP eligibility.

Using the data sources described above, Trippe and Sykes estimated that the participation rate for all FSP-eligible households is about 69 percent (Table II.1). The rates for the working poor and poor elderly are much lower.³ They estimated that only 48 percent of working poor households and 34 percent of poor elderly households participate in the program.

²MATH[®] is a registered trademark of Mathematica Policy Research, Inc.

³In this context, working poor households are households with earnings that are determined eligible for food stamps by the model. Poor elderly households are households that are determined eligible for food stamps by the model and contain at least one person 60 years of age or older.

TABLE II.1

FSP PARTICIPATION RATES: JANUARY 1992

| | Number of Households in Thousands | | | Participation Rate |
|-------------------|-----------------------------------|--------------|-----------------|--------------------|
| | All FSP-Eligibles | Participants | Nonparticipants | |
| All FSP-Eligibles | 13,983 | 9,631 | 4,352 | 68.9% |
| Elderly | 4,579 | 1,533 | 3,046 | 33.5 |
| Working Poor | 3,959 | 1,910 | 2,049 | 48.2 |

SOURCE: Trippe and Sykes (1994, p.17 and p.21).

Although working poor and poor elderly households account for a relatively small share of FSP participants, they make up a relatively large share of all FSP-eligible nonparticipants. Trippe and Sykes report that the working poor account for only 20 percent of participants but 47 percent of all FSP-eligible nonparticipants. The statistics for the poor elderly are even more striking. They find that the poor elderly account for only 16 percent of participants but 70 percent of all FSP-eligible nonparticipants. The numbers in Table II.1 also suggest that there are many eligible nonparticipant households that can be considered both poor elderly and working poor.

B. DIRECT EVIDENCE ON THE REASONS FOR NONPARTICIPATION

The direct evidence on reasons for nonparticipation in the FSP comes from survey data and focus groups. We supplement our discussion of the FSP with some discussion of survey data on SSI participation.

1. Survey Evidence on FSP Nonparticipation

The main advantage of survey evidence is its “directness;” that is, respondents are asked directly about their reasons for nonparticipation. The main disadvantage of this type of survey evidence is that the distribution of responses is highly sensitive to the procedure used to estimate FSP eligibility. For example, some studies may find that a high percentage of “eligible” nonparticipants report that they believe they are ineligible due to errors in estimating eligibility; but many of these households may, in fact, be ineligible.

a. Evidence from the Panel Study of Income Dynamics (PSID)

Several studies have analyzed data from the PSID regarding nonparticipation in the FSP (Coe

1983b, GAO 1988a, GAO 1990).⁴ The PSID is a longitudinal survey that has annually collected demographic and economic data on a sample of U.S. households since 1968. In 1980 and 1987, households in the PSID that did not receive food stamps were asked a series of questions about nonparticipation in the previous year (1979 and 1986, respectively). Each study we review used a sample of PSID households estimated to be eligible for the FSP, based on income data, to analyze the reasons for nonparticipation.

The PSID data have several limitations. First, the question on nonparticipation in the FSP is open-ended and hence, difficult to code. In addition, it did not probe for underlying reasons for nonparticipation. Second, the income and asset information used to estimate eligibility is based on an annual, rather than a monthly, accounting period, and the asset information, in particular, is quite poor. Third, the sample sizes in the PSID are quite small; the total number of households estimated to be eligible for the FSP in 1986 was only 729 (GAO 1988a).

Analyses of PSID data suggest that perceived ineligibility for food stamps is a major factor in nonparticipation. Using the 1979 PSID data, Coe (1983b) found that nearly 54 percent of FSP-eligible nonparticipants thought they were ineligible for the program. The GAO (1988a) figure, 51 percent, is comparable.

These studies found that the main reason “eligible” households thought they were ineligible is that they thought their income and/or assets were too high. Thirty-four percent of such households in 1979 and 39 percent in 1986 gave this reason (Coe 1983b, GAO 1988a). In 1986, an additional 14 percent thought they were ineligible because of FSP requirements other than assets and income (GAO 1988a). This implies that a total of 53 percent of households that thought they were ineligible in 1986 came to that conclusion because of a perceived failure to meet program requirements.

⁴Coe has another study that reports similar findings (Coe 1983a). Because the two papers report the same results for nonparticipation, and because Coe (1983b) includes information about nonparticipation for different demographic groups, we discuss only Coe (1983b) in our review.

The data on nonparticipating households that *did* believe they were eligible for the FSP showed that most such households had not applied for food stamps. Seventy-four percent of households that considered themselves eligible in 1979 and 83 percent that considered themselves eligible in 1986 have never tried to participate in the FSP (Coe 1983b, GAO 1988a). More detailed analysis of the 1986 data reveals that the two most common reasons for not applying for food stamps are a perceived lack of need and perceived administrative hassles with the program (GAO 1988a).

The studies by Coe (1983b) and the GAO (1990) examined variations in the reasons for nonparticipation according to household characteristics. Comparing FSP-eligible households with elderly unmarried heads to those with middle-age married heads, Coe (1983b) found that the unmarried elderly were relatively more likely to report perceived ineligibility but less likely to report not knowing about the program. This suggests that the unmarried elderly are relatively more aware of the FSP, but relatively less aware of their eligibility status.

The GAO (1990) found that the most common reason for nonparticipation among the elderly is the absence of desire for food stamps. This is also the most common reason given by households receiving Social Security income, which undoubtedly overlaps considerably with the elderly households. Coe (1983b) also found that a negative attitude toward participation in the FSP is more common among elderly unmarried males relative to middle-age married heads of household.

Coe (1983b) examined the reasons for nonparticipation among working poor households, which he defined as those in which the head was employed for at least 1,500 hours in the previous year. He found that the working poor are more likely than other eligible households to believe that income and/or assets are too high to be eligible. He also found that the probability of reporting this reason for ineligibility increased as total household income increased.

b. Evidence from the Survey of Food Consumption in Low-Income Households (SFC-LI)

Blaylock and Smallwood (1984) examined the reasons for nonparticipation in the FSP using data from the 1979-1980 SFC-LI. Like the PSID-based research, this study found that information problems are central to nonparticipation. Among FSP nonparticipants in the SFC-LI, 38 percent reported lack of information as the reason for nonparticipation. The next most common reason is the belief that other households need the assistance more; this was reported by 27 percent of nonparticipants. The remaining 25 percent of nonparticipants cited either costs of participation, an aversion to food stamps, or having been denied food stamps as their reason for nonparticipation.

Blaylock and Smallwood also found variation in the distribution of reasons according to household characteristics. In particular, lack of information about the FSP is relatively more common among households headed by an employed person as well as homeowners, larger households, and those headed by a high school graduate. Households headed by an elderly person were more likely to report that costs of participation are too high to make it worthwhile, as were larger households and households headed by nonblacks.

c. Evidence from the SSI/Elderly Cashout Demonstration

Two studies have examined reasons for nonparticipation in the FSP using data from a survey of low-income elderly that was part of the evaluation of the SSI/Elderly Cashout Demonstration, which took place in the early 1980s (Blanchard et al. 1982, Hollenbeck and Ohls 1984). This demonstration provided cash benefits in place of the usual FSP coupons to households with members 65 years or older, with SSI income, or with both. Hence, this evidence on nonparticipation is relevant to our analysis because it focuses on the poor elderly.

The survey results from the SSI/Elderly Cashout Demonstration suggest that many eligible households are not aware that they are eligible for food stamps. When all nonparticipants were asked if they thought they were eligible, 33 percent said no, and another 36 percent said that they did not

know. These findings are consistent with PSID data on the important role that misperceptions about ineligibility play in nonparticipation.

The survey in the SSI/Elderly Cashout Demonstration also asked those who had never applied for food stamps about their reasons for not applying. The most common responses to this question were that food stamps are not needed (37 percent), that they do not think they are eligible (25 percent), and that benefits are not worth the hassles and costs required to obtain them (21 percent). A relatively small share of those who had never applied cited reasons relating to stigma or physical access.

Among the eligible nonparticipants that had applied for the FSP but never received food stamps, approximately 80 percent cited having been previously denied food stamps as their reason for current nonparticipation. This is an important point, as it suggests that once households are told that they are ineligible, they continue to believe this even if their circumstances change.

d. Evidence from the Simplified Access Demonstration

A study of the Simplified Access Demonstration (Ohls et al. 1985) explored why FSP-eligible households that receive other welfare do not receive FSP benefits. This demonstration, designed to facilitate the FSP application process, was targeted to households receiving other forms of welfare, particularly AFDC. As part of the study, AFDC recipients who were not participating in the FSP but believed they were eligible were asked about nonparticipation. Their responses reveal that problems with access to the FSP office, perceived lack of need for food stamps, and the perception that the available benefits are not worth the costs to obtain them deter these households from getting food stamps. As these households were receiving AFDC, it is not surprising that few gave stigma associated with welfare as a reason for nonparticipation. It is also possible that a large share of these AFDC recipients belong to larger households that have income or assets exceeding FSP eligibility limits (Beebout 1993).

2. Survey Evidence on SSI Nonparticipation

SSI, administered by the Social Security Administration (SSA), provides monthly cash assistance to needy aged (65 years of age or older), blind, and disabled persons who meet nationally uniform income eligibility requirements. As the population eligible for SSI overlaps with those in the poor elderly subgroup of FSP-eligible households, evidence on nonparticipation in SSI is quite relevant to the present study. Here, we review several studies that have analyzed data from surveys that ask SSI-eligible nonparticipants about nonparticipation (Coe 1983c, Coe 1985, Urban Systems Research and Engineering 1981).

a. Evidence from the PSID

Coe (1983c, 1985) analyzed 1979 data from the PSID on the reasons for nonparticipation in SSI. The PSID data on SSI nonparticipation is analogous to that for the FSP (Section B.1.a). Using a sample of households estimated to be eligible for SSI, Coe examined the distribution of reasons for nonparticipation. In considering his results, we must be mindful of both the fact that the sample of eligible households was very small (76) and the other limitations of the PSID data outlined above.

Similar to the studies of FSP nonparticipation, Coe's analyses of the PSID data on SSI nonparticipation reveal that information problems are a major reason for nonparticipation. In fact, about 72 percent of SSI-eligible nonparticipants thought that they were not eligible to receive SSI benefits. The two most common reasons for perceived ineligibility are a belief that the household's income or assets preclude eligibility and a lack of information about the eligibility requirements for SSI.

b. Evidence from a Study by Urban Systems Research and Engineering

A 1981 study by Urban Systems Research and Engineering examined nonparticipation in SSI on the basis of a survey of approximately 2,000 low-income elderly persons in 18 areas of the United States conducted in 1979. This study, like much of the other research summarized in this review, found

that lack of information about the program was quite prevalent among nonparticipants. In particular, 45 percent of nonparticipants had never heard of SSI, and 40 percent had never heard of SSI or any other program designed to assist low-income elderly persons. Further, the most common reason the SSI-eligible elderly gave for nonparticipation was that they “don’t know about” the program (over 70 percent). The study also found that low-income elderly were quite confused about the difference between Social Security and SSI; only 17 percent of SSI nonparticipants knew that these two programs were different. Since the SSI program was only several years old when this survey was taken, not knowing about the existence of SSI may have been relatively more common at that time than it would be at present.

The Urban Systems Research and Engineering study also reveals several interesting points about SSI nonparticipants who know of SSI. First, responses to questions about how these elderly learned of SSI point to friends, newspapers, and the SSA. At least 30 percent of nonparticipants that were aware of SSI cited each of these three sources. Second, responses to questions about various aspects and requirements of the program indicate that nonparticipants who were aware of SSI had about the same level of understanding of the program as SSI participants. Thus, while the study found that SSI nonparticipants in general tended to lack awareness of the program, it also found that the nonparticipants who were aware of SSI were not particularly less well informed than participants.

Like the preceding studies of the FSP, the Urban Systems Research and Engineering study found evidence that stigma does not play a major role in SSI nonparticipation. In fact, only 10 percent of SSI nonparticipants interviewed said they would be embarrassed to have people know they were participating in SSI if in fact, they were participating.

3. Focus Group Evidence on FSP Nonparticipation

The second type of direct evidence on nonparticipation is information gathered from focus groups. The benefit of focus group data is that it provides rich information on reasons for nonparticipation

gathered from open-ended questions. While the nonrestricted nature of focus group responses is thus quite informative, it also means that we do not obtain quantitative evidence on relative frequencies of specific reasons as we do with survey data.

We review one recent study that used focus groups to examine nonparticipation in the FSP and other food assistance programs by the elderly (Ponza and Wray 1990). There were 12 focus groups with a total of 125 low-income elderly in Detroit, Los Angeles, and New Orleans in the study.

Ponza and Wray (1990) identified four key reasons for nonparticipation: program features, program awareness, personal preferences or attitudes, and actual program ineligibility. In terms of program features, the responses of focus groups participants reveal that the level of the benefits relative to the cost of securing them is one feature of the FSP that discourages participation. On the other hand, the fact that FSP participants can purchase the food they want, unlike other food assistance programs, is a feature that focus group members cited as encouraging participation.

In terms of program awareness, the focus groups reveal that information problems are a key deterrent to participation. This finding is consistent with the survey evidence on nonparticipation. In the focus groups with low-income elderly, lack of awareness about the existence of the FSP, about the availability of benefits, about requirements for eligibility, and about the procedures to enroll were all cited as information-related reasons for FSP nonparticipation.

C. STATIC ANALYSES OF FSP PARTICIPATION

This section discusses research on the relationship between participation in the FSP and demographic and economic characteristics of eligible households (or, in some cases, individuals) measured at a single point in time. We supplement our discussion of studies of the FSP with evidence from studies of SSI, the EITC, and AFDC.

1. Evidence on Participation in the FSP

a. Participation Rates and Tabulations

A number of studies have computed FSP participation rates for the total FSP-eligible population and various subgroups (Trippe and Sykes 1994, Trippe and Doyle 1992, Allin et al. 1990, Doyle and Beebout 1988). In addition to the working poor and poor elderly, other types of households identified as having relatively low FSP participation rates are those with:

- A white or Hispanic household head (or reference person)⁵
- Fewer members
- No children
- Higher education
- Higher income
- Assets
- No other public assistance (for example, AFDC, SSI, or General Assistance)
- Lower FSP benefits

Similarly, studies comparing eligible nonparticipants to participants have generally found that nonparticipants are also more likely to have the preceding characteristics (Trippe and Sykes 1994, Trippe and Doyle 1992). This list suggests some characteristics, in addition to the presence of elderly or earners, which may contribute to nonparticipation in the FSP.

Blanchard et al. (1982) compared the characteristics of elderly FSP-eligible nonparticipants with elderly FSP participants using data from a survey of low-income elderly that was part of the SSI/Elderly Cashout Demonstration. The survey results show that relative to elderly FSP participants, elderly nonparticipants tend to be older and more highly educated; they also tend to have higher incomes and are more often white and male. In addition, the SSI/Elderly Cashout Demonstration survey examined Social Security, pensions, and SSI -- three key income types for the elderly. The results show that elderly nonparticipants are more likely than participants to have Social Security income and pension

⁵In SIPP (and typically in other survey data), the "reference person" is person in whose name the home is owned or rented (U.S. Department of Commerce 1991).

income but less likely than participants to be receiving SSI. Finally, they found that elderly eligible nonparticipants have higher medical expenses than participants. This finding is consistent with the view that some individuals may be unaware that the FSP has a deduction for medical expenses.

The preceding studies suggest a set of characteristics that are associated with nonparticipation in the FSP. However, analyses based on comparisons cannot tell us the extent to which characteristics actually contribute to nonparticipation. For example, the fact that households without children have lower FSP participation rates could result from an effect that having children in the household has on the likelihood of participation. However, it could equally be due to differences in household size between families with and without children combined with an effect of household size on participation, even if having children in the household does not have an independent effect on participation in the FSP. Results of multivariate analysis, however, do reveal the extent to which any given characteristic affects the likelihood of participation because they allow us to hold other characteristics constant.

b. Multivariate Analyses of Participation

Allin and Beebout (1989) and the GAO (1988a) reviewed studies that used multivariate analysis and were completed as of the late 1980s. Recent work by Martini (1992), who used 1985 data from SIPP, has added to this line of research.

There is consensus in the multivariate static analyses on FSP participation that an elderly individual in the household (or an elderly head of household) is significantly associated with a lower likelihood of FSP participation (Martini 1992, Allin and Beebout 1989, GAO 1988b). This research also reveals that indicators of a working poor household--such as the presence of an earner, the amount of earnings, or the employment status of the household head--are significantly associated with a lower likelihood of FSP participation. However, differences in participation rates between elderly and nonelderly households, and between earning and nonearning households are narrowed somewhat once we control for other characteristics. This implies that the low FSP participation rates of the working poor and the

poor elderly can partly, but not fully, be explained by other observable characteristics of these groups that also significantly influence participation.

Besides earnings and the presence of an elderly member, a number of other household characteristics are significant determinants of FSP participation. Most studies have found that the following characteristics are significantly related to *lower* probabilities of participation:

- Fewer household members
- Higher education of household head (or reference person)
- Higher household income
- Having assets
- Not receiving other public assistance (such as AFDC, SSI, or General Assistance)

These characteristics are very similar to those associated with household types that have low participation rates (see Section C.1.a). However, there are a few key differences. While participation rates have been found to vary by race, the presence of children, and FSP benefit levels, these characteristics have not consistently shown significant effects in multivariate analyses. Some multivariate analyses have shown that these variables have significant effects, while others have not. This suggests that much of the variation in FSP participation according to race, children, and benefit levels may stem from a correlation between these characteristics and other characteristics that are significant determinants of FSP participation.

Previous studies using multivariate analysis have found that earnings, other private income, assets, and higher education each reduce the likelihood of FSP participation. Perhaps households with these characteristics are better able to sustain themselves through relatively short periods of eligibility with existing resources and positive expectations about the future. It may also be that misperceptions about eligibility rules related to earnings and assets reduce participation among these households. Research has also shown that participation in other public assistance programs is strongly related to an increased likelihood of participation in the FSP. This could be because other programs may provide information

about the FSP and the way to apply for food stamps. In addition, those who are in greatest need and are most willing to incur the costs of participating in the FSP are also likely to participate in other programs.

One important goal of the present study is to identify the relationship between household characteristics and FSP participation for working poor and poor elderly households in particular. The existing evidence on this subject is scarce, particularly regarding the working poor. For the poor elderly, however, we do have some evidence from Martini (1992) and Blanchard et. al (1982). Martini found that most of the characteristics that were significant determinants of FSP participation among all FSP-eligibles were also significant determinants in the elderly subgroup. These characteristics include household size, age of the reference person, receipt of public assistance, and presence of assets. However, race, education, and earnings were significant determinants of participation among all FSP-eligibles but not among households with elderly members. This indicates that different characteristics may influence participation in particular subgroups of the eligible population.

Unlike Martini (1992), Blanchard et al. (1982) found education was a significant determinant of FSP participation among the elderly, while household size was not. This could be because the samples covered different periods or because Martini used national data while Blanchard et al. focused only on select areas.⁶ In addition to studying the standard economic and demographic characteristics, Blanchard et al. also analyzed how distance to the food stamp office, access to a car, and embarrassment about food stamp receipt affect the elderly's FSP participation. They found that distance to the food stamp office and embarrassment about receiving food stamps significantly decrease the probability of FSP participation by the elderly. Ownership or access to a car, however, was not a significant determinant

⁶The areas surveyed in Blanchard et al. (1982) were located in New York, South Carolina, and Oregon.

of participation. Therefore, these results provide mixed evidence about the effect of access problems on participation.

2. Evidence on Participation in Other Programs

a. SSI

A study by ICF Incorporated (1988) documented variations in SSI participation across demographic subgroups of elderly (defined as age 65 and older) using data from the Current Population Survey (CPS) and the SSA. The study found lower participation rates among elderly who are married compared with elderly who are single. Participation rates did not vary by gender. Interestingly, the ICF study found that participation in SSI *increased* with age, while Martini (1992) found that participation in the FSP *decreased* with age among elderly FSP-eligible households. In addition, the ICF study (1988) found higher SSI participation rates in the south and west regions of the United States than in the northeast and northcentral regions.

An earlier study of SSI conducted by Urban Systems Research and Engineering (1981) used data from a survey of low-income elderly in 18 areas of the U.S. to compare the characteristics of SSI participants to eligible nonparticipants. The study found that eligible nonparticipants are younger, more likely to be female, more likely to be married, more highly educated, and less likely to live alone than are participants. In terms of economic characteristics, nonparticipants have higher incomes (other than SSI) and are more likely to receive Social Security, own their homes, and have liquid assets. They are less likely to apply for or receive aid from other government programs and are more likely to be eligible for small SSI benefits than participants. The results of this study of SSI contrast with the results of similar FSP studies in at least two ways: (1) the association of younger age and larger households with nonparticipants and (2) the lack of racial variation by participation status.

Four previous multivariate studies of SSI participation all found that receiving higher SSI benefits and living in the South are significantly related to higher likelihood of SSI receipt (Shiels et al. 1990,

Warlick 1982, Coe 1985, Coe 1983c). Other characteristics identified as positively related to participation in SSI include being an unmarried elderly woman (Coe 1985) and rural residence (Warlick 1982, Shiels et al. 1990). This research found mixed evidence on the effect of health on participation; Shiels et al. (1990) found that poor health increases the probability of receiving SSI, while Coe (1985) found that poor health is not a significant determinant of receipt. Both Shiels et al. (1990) and Coe (1985) found that economic resources are significantly related to lower likelihood of SSI participation. In particular, Shiels et al. (1990) found a negative effect of earnings, pension income, private health insurance, and home ownership on participation, and Coe (1985, 1983c) found a negative effect of home ownership (the only measure of economic resources in his analysis). These results are consistent with the idea that misperceptions of eligibility because of existing income and assets may reduce participation in public assistance programs. They are also consistent with FSP participation declining as need declines.

b. Earned Income Tax Credit

The EITC is the only important source of public assistance targeted specifically for the working poor. This program provides a tax credit to low-income families who have earnings. To obtain the credit, the household completes a two-page form and submits it to the Internal Revenue Service (IRS) with its other federal tax forms; the IRS credits the EITC benefit against the tax liability and sends the taxpayer any difference.

Recent research by Scholz (1994) suggests that the participation rate for the EITC--the proportion of eligible families who receive the credit--is much higher than the participation rate for the FSP. Using data from SIPP and the IRS, Scholz (1994) estimated that 80 to 86 percent of working families eligible for the EITC received the credit in 1990. We suggest four reasons for the higher rate of participation in the EITC: (1) there is unlikely to be any stigma associated with receiving the EITC; (2) the IRS notifies families that may be eligible for the EITC about their likely eligibility; (3) the EITC is received

in the form of cash with no limitations on how it is spent; and (4) the prevalence of commercial tax preparers in low-income areas during tax season (Olson 1994).

Scholz's multivariate analysis of 1990 SIPP data identified a number of factors that are significantly associated with EITC receipt. Several factors *reduce* the likelihood of EITC receipt:

- Being eligible for a smaller EITC
- Having a higher percent of earned income from self-employment
- Residing in a state without a state income tax

Each of these three factors reduces the probability that the net benefit to filing a federal tax return to claim the EITC is positive. Scholz also found that being unmarried, male, and of Hispanic origin, as well as having higher education reduce the probability of receiving the EITC.

c. AFDC

AFDC provides cash assistance to needy families with dependent children. In general, AFDC eligibility is restricted to single-parent families and families with two unemployed parents. AFDC eligibility is also determined by income. Each state can set its own AFDC income eligibility rules and benefit levels.

Moffitt's survey (1992) of the welfare literature summarizes the research on AFDC participation. The AFDC benefit level, age of the mother, being nonwhite, having more children, poor health, and being disabled are significantly associated with a higher probability of AFDC participation. Increased education and residence in the South are significantly associated with a lower probability of participation. The mother's wage and nonlabor, nonwelfare income have been shown to have a negative effect on AFDC participation, but these relationships are not always statistically significant. These findings suggest that single-mother families with the greatest income needs are most likely to enroll in AFDC. It is noteworthy that poor health, associated with a higher probability of participation

in AFDC among single mothers, is associated with a lower probability of participation in SSI among the elderly (Shiels et al. 1990).

D. DYNAMIC ANALYSES OF FSP PARTICIPATION

The rate of participation in the FSP at one point in time is determined by entry into and exit from the FSP up to that point. Specifically, FSP participants are those who have previously entered the program *and* remain in the program at that time, while FSP-eligible nonparticipants are those who have not entered the FSP or who have previously entered but have since left the program. Hence, a full understanding of nonparticipation requires understanding what determines transitions into and out of the FSP as well as transitions into and out of the FSP-eligible population.

1. Participation Dynamics

a. Entry and Exit Rates

Several studies have documented rates of entry into and exit from the FSP across subgroups of the FSP eligible population (Burstein 1993; Carr et al. 1984, Coe 1979). In this context, an entry rate measures the proportion of FSP eligibles in period t that enter the FSP in period $(t+1)$, and an exit rate measures the share of participants in t that exit in $(t+1)$.

These studies identified households with earners and households with elderly as having relatively *low* FSP entry rates. However, these two subgroups have been found to display different exit patterns. Specifically, households with elderly have relatively *low* rates of exit from the FSP, while households with earners have relatively *high* rates of exit. This implies that households with earners experience more turnover in FSP participation.

Several types of households have the opposite FSP entry and exit rate pattern of the working poor. Groups with this “high entry / low exit” pattern include households receiving AFDC or other welfare, single-parent households, households headed by nonwhites, large households, and households with low

education (Burstein 1993, Carr et al. 1984). In contrast, households with at least two children have both a *high* FSP entry rate and a *high* FSP exit rate.

b. Spell Duration

Another way to characterize participation dynamics over time is to measure the length of participation spells. Spell duration is closely related to the exit rates discussed above. Analyzing data from the 1984 SIPP, Burstein (1993) found a median FSP participation spell length of 6 months, and using FSP administrative data from 1980 to 1983, Burstein and Visher (1990) found a median spell length of 7 months. Both of these studies found that households with earners have relatively short spells of FSP participation, while households with elderly have comparatively longer spells (Burstein 1993, Burstein and Visher 1990). For example, Burstein (1993) found a median spell length of only 4 months for households with earnings compared to 11 months for households with an elderly (age 60 or older) or disabled member. The longer participation spells of the elderly, combined with low exit rates, suggests that nonparticipation in this population is primarily the consequence of never entering the FSP rather than exiting while still eligible.

c. Recidivism

The rate of recidivism, or re-entry, among prior participants in the FSP is another dimension of participation dynamics. This aspect of participation can also be discussed in terms of the incidence of multiple spells. Several prior studies have examined recidivism among FSP participants (Carr et al. 1984, Burstein and Visher 1990, Burstein 1993). Using data from the 1984 SIPP, Burstein (1993) found that 38 percent of prior FSP recipients returned within 12 months of exiting the program, and 44 percent returned within 16 months. In FSP administrative data from the early 1980s, Burstein and Visher (1990) found that within two years of beginning FSP participation, one-third of participants have exited and subsequently re-entered the FSP. The study by Carr et al. (1984) showed that about 12

percent of FSP participating households in the 1979 Income Survey Development Program (ISDP) panel had two or more distinct participation spells; since this data set covers a single calendar year, this suggests a relatively high degree of recidivism. For the working poor and poor elderly, Burstein (1993) found that the recidivism rates of earners mirror the full sample of prior recipients. However, she found that recidivism rates of the elderly are considerably lower. Only 21 percent of FSP recipients who are elderly or disabled and who exit the program re-enter within 12 months, and only 26 percent return within 16 months.

d. Multivariate Analysis

Several studies used multivariate analysis to estimate the impact of household economic and demographic characteristics on the probability of households entering or exiting the FSP (Burstein and Visher 1990, Carr et al. 1984). Using 1979 data from the ISDP, Carr et al. (1984) found that the presence of an earner is associated with a lower probability of FSP entry and a higher probability of FSP exit, even after controlling for other characteristics. Burstein and Visher (1990) also found that earnings (measured as the level of earnings at the beginning of the spell) positively affects exit probabilities in PSID data, but in the FSP administrative data, they found that having earnings is only significant for single-parent households. While households with elderly members have low FSP entry rates, Carr et al. (1984) found that the presence of an elderly member is not significantly related to the probability of FSP entry even though the presence of elderly is significantly related to lower FSP exit probabilities. Using administrative data, Burstein and Visher (1990) also found that age has a negative effect on FSP exit. In addition, Burstein and Visher (1990) found that households headed by elderly persons are significantly less likely to return to the FSP after exiting, even after controlling for other characteristics. These results suggest that, although households with elderly members are unlikely to exit the FSP, those that do exit are unlikely to return. This could be because exits among the elderly are often associated with death or institutionalization (Burstein and Visher 1990).

Carr et al. (1984) found that being non-white, having a single head of household, and receiving AFDC are significant determinants of FSP entry and FSP exit. In Carr's study, each of these characteristics is associated with higher entry and lower exit probabilities. Burstein and Visher's (1990) analysis confirmed that AFDC participation has a strong negative effect on FSP exit probabilities. In addition, the authors considered the effect of general assistance, SSI, and Social Security receipt on FSP exit. Each of these types of transfer income lowers the likelihood of exiting FSP, using PSID or FSP administrative data.

2. Eligibility Dynamics

a. Entry and Exit Rates

As noted by Carr et al. (1984), turnover in program participation is the result of decisions regarding participation among those eligible to participate and the result of changes in eligibility status. These eligibility transitions result from changes in the economic resources of households. The analysis of eligibility dynamics by Carr et al. (1984) revealed that households with earnings have relatively high rates of FSP eligibility turnover, while those with elderly members have relatively low rates of FSP eligibility turnover. Eligibility turnover was defined as the ratio of the number of households ever eligible for the FSP during the year to the number of households eligible in an average month. These findings imply that our two "low FSP participation" groups, the working poor and poor elderly, have different patterns of FSP eligibility over time. Households with earnings experience many transitions into and out of FSP eligibility, while households with elderly experience few transitions into and out of FSP eligibility.

b. Eligibility and Participation

Blank and Ruggles (1996) used SIPP data to study the dynamics of AFDC and FSP participation among single mothers. These researchers considered the relationship between beginning eligibility and

beginning participation, as well as that between ending eligibility and ending participation. They found that only 24 percent of FSP *eligibility* spells actually led to FSP *participation*. Another 54 percent of FSP eligibility spells ended without FSP participation. The remaining 22 percent of the eligibility spells were still ongoing at the end of the sample period. Blank and Ruggles also found evidence that when participation does follow eligibility, it happens quickly. Approximately 73 percent of all observed FSP entry occurs within one month of becoming eligible. These authors also found that eligibility and participation do not usually end at the same time; 60 percent of the single mothers who exit the FSP are still eligible in the first month after the exit, and 55 percent remain eligible 12 months after the FSP exit. This suggests that single mothers experience many spells of FSP eligibility that start and end without FSP participation, and many of those who participate in the FSP leave while they are still eligible.

c. Multivariate Analysis

The studies by Blank and Ruggles (1996) and Carr et al. (1984) include multivariate analysis of FSP eligibility. The analysis by Carr et al. (1984), based on the 1979 ISDP data, reveals that the presence of an elderly (or a disabled) household member significantly increases the probability of beginning a spell of eligibility and decreases the probability of ending an eligibility spell, even after controlling for other characteristics. Though households with earners are less likely to become eligible for the FSP than other households, Carr et al. (1984) found that the presence of an earner is not a significant determinant of beginning an FSP eligibility spell in multivariate analysis. However, the presence of an earner increases the probability of becoming ineligible for the FSP (ending an eligibility spell) among FSP eligible households.

A spell of FSP eligibility and nonparticipation can end in two ways: (1) participation in the program, and (2) ineligibility for the program. Blank and Ruggles (1996) examined spells of FSP eligibility and participation in a sample of single mothers. They investigated the factors that determine

the probability that the mothers end their spell of eligibility and nonparticipation in these ways. Their results suggest that the determinants of these two outcomes are different. Being younger and being disabled are demographic characteristics that each have a significant positive effect on ending a spell of eligibility and nonparticipation by the mother participating in the program. In contrast, other demographic characteristics--being older, being nondisabled, having more education, married, and having fewer children--each have a significant positive effect on ending a spell of eligibility and nonparticipation by becoming ineligible for the program.

3. Evidence on “Trigger” Events

Previous authors have identified three key types of events that trigger entry into and exit from the FSP: (1) income-related events (aside from those associated with participation in public assistance programs), such as a change in employment status, earnings, or unearned non-transfer income; (2) family composition changes, such as the birth of a child or change in marital status; and (3) changes in participation in other public assistance programs, such as AFDC or SSI (Blank and Ruggles 1996, Burstein 1993, Allin and Beebout 1989, Williams and Ruggles 1988, Coe 1979). These events are expected to alter the likelihood of FSP entry or exit by changing the household’s income needs, its eligibility for the program, or its information about the FSP.

a. Tabulations

Previous studies have analyzed the trigger events most frequently associated with transitions into and out of the FSP. A change in household income is the most common trigger event (Burstein 1993, Williams and Ruggles 1988). And the most common reason for a change in household income is a change in earnings of a household member (Burstein 1993). In 1984 SIPP data, Burstein (1993) found a recent change in earnings of a household member was experienced by 53 percent of all individuals entering the FSP and 57 percent of those leaving the program. Not surprisingly, this trigger event was

observed more frequently for individuals in households with earnings (at the beginning of the sample period) and less frequently for individuals who are elderly or disabled. Burstein (1993) also found that the elderly and disabled are less likely than other individuals to experience *any* of the trigger events she examined. This suggests that it is more difficult to explain the poor elderly's transitions into and out of the FSP by readily observable events.

Burstein (1993) also pointed out an important difference between the frequency of trigger events surrounding FSP transitions and the frequency of FSP transitions *conditional* on particular events. In particular, she found that family composition events (such as birth or death) occur less frequently than income-related events, while the probability of entering the FSP is higher for individuals who experience a family composition event than for those who experience an income-related event. For example, 5.5 percent of individuals who experience the birth of an infant enter the FSP, compared to only 2.8 percent of those who experience a decrease in earnings of a household member (Burstein 1993). This same pattern was found by Williams and Ruggles (1988).

Burstein (1993) also found that the probability a trigger event leads to an individual entering the FSP is lower for individuals in households with earnings than for those in households without earnings. This result was found for both family composition and income-related trigger events. This finding suggests that earnings in the household may cushion the impact of events that might otherwise lead to an individual entering the FSP.

b. Multivariate Analysis with Trigger Events as Explanatory Variables

Several studies have estimated the effect of trigger events or changes in household circumstances on transitions into and out of the FSP in a multivariate context. The results of these analyses suggest that changes in income are significantly related to these transitions, even after controlling for other household characteristics (Allin et al. 1990, Burstein and Visser 1990, Allin and Beebout 1989, Carr and Lubitz 1984). Job loss or gain, which is one cause of income change, has been identified as a

significant factor in the literature reviews by Allin et al. (1990) and Allin and Beebout (1989) and in the studies by Burstein and Visher (1990) and Williams and Ruggles (1988). Carr and Lubitz (1984) also identified a change in the number of earners in the household and a change in assets as two significant predictors of transitions into and out of the FSP.

While studies have found that demographic trigger events are less frequent than income-related events, several multivariate analyses have found that family composition changes are significantly related to transitions into and out of the FSP. For example, Williams and Ruggles (1988) found that the birth of a child in the family significantly increases the probability of a person entering the FSP. And both Williams and Ruggles (1988) and Carr and Lubitz (1984) found that changes in marital status are significant predictors of a person entering or leaving the FSP. These results suggest that it is important to consider the contribution of demographic events to the decision to begin or end participating in the FSP.

c. Multivariate Analysis with Trigger Events as a Type of Exit

Blank and Ruggles (1996) also examined trigger events in a multivariate framework. However, rather than looking at the likelihood of an event ending a participation spell, these authors investigated the demographic and economic characteristics that determine the probability of a trigger event leading to the end of FSP participation.

For our purposes, the most relevant result of this study is that the characteristics that determine the probability of ending a participation spell depend on the trigger event associated with the end of the spell. For example, being non-white and having fewer years of education each significantly lower the probability that a single mother will end her participation because of an income or other non-household composition change, while marital status does not affect this outcome. In contrast, never having been married significantly lowers the probability she will end her participation with a household composition change, while race and education do not affect this outcome. Similar analyses of AFDC exits (Blank

and Ruggles 1996, Blank 1989, and Fitzgerald 1991) have also concluded that different types of participation spell endings have different determinants.

E. PROGRAM FEATURES, OUTREACH, AND FSP PARTICIPATION

This section draws on studies of the operation of the FSP to provide evidence on whether some features of the program may deter participation. It also discusses what successful outreach efforts teach us about the reasons for nonparticipation.

1. Program Features That May Deter Participation

This section draws heavily on a 1990 study of the FSP application process by Bartlett et al. (1992). This study describes the FSP application process in five local offices (urban and rural) in two states and identifies features of the process that may deter participation. We also draw on evaluations of the food stamp cashout and EBT demonstrations to identify features of the benefit issuance process that may deter participation. We have little evidence, however, on whether these features of the program actually *do* deter participation.

While the exact procedures for applying for food stamps vary among states, food stamp offices, and to some extent clients, the basic application process involves four main steps:

1. ***Requesting information and obtaining an application form.*** Information can be requested by calling or visiting the FSP office. The application form can be obtained in person or through the mail.
2. ***Completing and filing an application form.*** The application form is typically completed on the person's first visit to the food stamp office. However, it can also be completed at home and mailed to the office, or completed by an authorized representative. FSP benefits are calculated from the date the application is filed.
3. ***Completing an eligibility determination interview.*** Typically, the eligibility determination interview is conducted by a caseworker at the FSP office. Unless the household is eligible for expedited service, this interview occurs days or even several weeks after the application is filed.

4. ***Providing verification of household circumstances.*** The applicant needs to supply documents to verify identity, citizenship, county residence, social security numbers, resources, earned and unearned income, contributions, expenses, and household composition. These documents can be provided at the certification interview or shortly after the interview. The applicant will not be determined eligible until the verification is complete.

After these steps are completed, caseworkers determine whether the applicant is eligible for food stamps, and, if so, the benefit amount.

a. Proportion of Applicants Who Complete the Application Process

The percentage of persons who contacted the FSP offices and completed the application steps is shown in Table II.2. Nearly one-third of all persons who inquire about the FSP do not complete the application process (Bartlett et al. 1992): about 11 percent of persons who inquire about the program do not complete an application form; 15 percent file an application but do not have a certification interview; and about 6 percent have a certification interview but fail to provide all the necessary documentation. Of all those who inquire about the program, 58 percent are approved for food stamps.

Table II.2 also shows the percentage of elderly persons and persons from working poor households who complete each stage of the application. Applicants from working poor households are less likely to complete the application process than other applicants--more than 40 percent of persons from working poor households who inquire about the program do not complete the application process. Unfortunately, these data do not allow us to distinguish whether people drop out of the process because they find they are ineligible or because of problems with the application process. The proportion of elderly applicants who do not complete the application is lower, but the sample is too small to measure any significant differences between the completion rate of elderly persons and other applicants.

TABLE II.2

PROPORTION OF APPLICANTS WHO COMPLETE EACH
STAGE OF THE FSP APPLICATION PROCESS

| Stage of Application Process | Percentage of Households That Inquire About the Program and Complete Each Stage | | |
|--|--|---------|--------------|
| | All Applicants | Elderly | Working Poor |
| Did not file an application form | 10.5 | 14.0 | 12.9* |
| Filed, but did not have a certification interview | 15.2 | 8.9 | 21.8* |
| Had interview, but did not complete application | 6.1 | 3.1 | 6.4 |
| Completed application | 68.2 | 74.0 | 58.9* |
| Approved for food stamps | 58.0 | 58.4 | 45.7* |
| Denied food stamps | 10.3 | 15.6 | 13.2* |

SOURCE: Bartlett et al. (1992, Tables 4.9 and 4.11).

*Statistically significant difference from other demographic groups at the 5 percent level. Based on reports of 706 persons who inquired about food stamps in five counties.

b. Obtaining Information about the FSP and the Application Process

Information on the FSP and the application process can be obtained by calling or visiting the office. Applicants interviewed in the Bartlett et al. (1992) study complained that they had problems reaching the office by phone because the telephone lines were busy. Only basic information about FSP eligibility and how to apply for food stamps was provided over the phone, and the average call lasted only about three to five minutes. It is rare for detailed information to be given to the applicant until they had completed an application form. It has been reported that, in some instances, incorrect information is provided to the potential applicant at this stage (New York City Comptroller's Office 1985). No conclusive evidence exists on how widespread this problem is.

c. The Application Process

Five features of the application process that may deter participation:

1. Length of time involved
2. Out-of-pocket expenses
3. Problems getting to the office
4. Difficulties completing the application form
5. Difficulties obtaining the documentation

Our discussion of these problems is based on evidence from the study by Bartlett et al. (1992). It should be kept in mind that the evidence in this study was collected only from persons who inquired about applying or actually applied for food stamps. People who were deterred from applying may face larger problems and incur higher costs.

Length of Time Involved. Bartlett et al. (1992) found that persons who inquire about food stamps at the FSP office spent an average of almost five hours on the application process. Applicants spent an average of three hours traveling to and from the food stamp office and waiting at the food stamp

office. The remaining two hours were spent filling out the application form, meeting with FSP staff, and collecting documentation. Those who were approved for benefits spent a total of about six hours on the application process.

Out-of-Pocket Expenses. Total out-of-pocket expenses averaged about \$10.40 for all persons who inquired about food stamps. However, the amount of out-of-pocket costs varied considerably by person. Most people spent much less than the average on the application process--the median out-of-pocket costs were only \$3.60. Yet about 5 percent of the sample spent more than \$45 on the process. For the persons with higher than average expenses, the main component of the cost was lost wages when visiting the office. This suggests that costs may be particularly high for some working poor. Of the \$10.40 spent on average, about \$7.40 of this was attributable to transportation costs and forgone wages. The remaining \$3 was spent obtaining necessary documentation. Among persons whose applications were approved, the average cost was lower (\$9.80); this may be because persons that face high expenses are deterred from completing the application process.

Difficulties Getting to the Office. In the offices studied by Bartlett et al. (1992), applicants who were approved for food stamps typically made one or two visits to the food stamp office. To get to the office, about 40 percent of the applicants got someone else to drive them or borrowed a car, 36 percent drove their own car, 19 percent took the bus, and 5 percent walked or took some other means of transport. These trips were costly and time-consuming; the average trip cost \$1.75. An hour or more, on average, was spent traveling to and from the food stamp office over the course of the application process.

Applicants can request that a form be mailed to them and then file the application form by mail. This is helpful to the frail elderly and working persons who may find it difficult to get to the office. However, in the four urban offices studied by Bartlett et al. (1992), staff reported that they only mailed

out application forms when specifically asked to do so. In contrast, the fifth office, located in a rural location, encouraged persons to file an application form by mail.

FSP regulations (Section 2020(e)) permit special arrangements for applicants whose ill health or employment poses a problem getting to the FSP office. The applicant can authorize someone to represent them in the interview. If this is not possible, applicants can request that the interview take place by telephone or at their home. Bartlett et al. (1992) found that while caseworkers would agree to make telephone or home interviews if specifically requested to do so, they did not offer these options to applicants. It was rare for interviews to be conducted outside the FSP office.

If all members of a household receive SSI, the household can file a food stamp application form at the SSA office. However, evidence suggests that many SSA caseworkers only file a food stamp application form when they are requested to do so. None of the offices in the Bartlett et al. study received more than five applications each month from SSA, and one office reported receiving only one per year.

Difficulties Completing the Application Form. In the Bartlett et al. study, office staff reported helping persons complete the application form, but only when they were requested to do so. They reported that the elderly often had problems because of the small typeface on the forms.

Difficulties Obtaining Documentation. Bartlett et al. (1992) report that 52 percent of those approved for food stamps incurred some costs acquiring the documentation required by the FSP, whether from photocopying or from obtaining the documents themselves.

FSP regulations (Section 2020 (e)) require that caseworkers help applicants obtain the required documentation. Bartlett et al. (1992) found that about 17 percent of the applicants who completed their certification interview were offered help by their caseworkers, and an additional 10 percent of applicants requested help.

d. Benefit Issuance

Benefits are primarily issued in four ways:

1. Coupons are mailed to the participant
2. Coupons are issued over-the-counter at the FSP office
3. Participants are issued an Authorization To Participate (ATP) card, which is used to obtain coupons at authorized locations, which may be the FSP office, stores, banks, or check-cashing establishments
4. Participants are issued an EBT card, which can be used directly at stores like a debit card--the purchases are electronically debited from a food stamp account.

When benefits are issued in the form of coupons, most participants prefer that they are mailed directly to them because this reduces trips to the FSP office or other distribution locations (Mazur and Ciemnecki 1991). This is important for frail elderly persons who may have problems getting out and the working poor who may find it difficult to take time off from work. Bartlett et al. (1992) report that waiting time and congestion at the FSP office is higher when the office distributes the coupons.

One of the main advantages of EBT is that participants only need to pick up an EBT card once, rather than obtaining coupons each month. Moreover, it is relatively easy to replace an EBT card when it is lost, stolen, or damaged--a new card can be issued with a different personal identification number (PIN). In many circumstances, coupons cannot be replaced or are replaced only after time-consuming procedures are followed. In the 1993 Expanded EBT Demonstration in Maryland, Beecroft et al. (1994) found that costs per case per month were the lowest for EBT issuance at \$3.15, compared with \$3.20 for distribution of coupons by mail, \$10.59 for distribution of coupons via ATP cards, and \$13.11 for issuance of coupons over the counter at the food stamp office. Most of the costs comprised participants' time (valued at the federal minimum wage) rather than out-of-pocket costs.

e. Using Coupons or EBT

FSP participants frequently cite the following problems with using coupons:

- ***The lack of flexibility in the items participants can purchase.*** Participants frequently wish to purchase paper products with their food stamp benefits (Mazur and Ciemnecki 1991, Ponza and Cohen 1990).
- ***Lack of security.*** Coupons can be lost or stolen.
- ***Stigma.*** Coupons are highly visible and easily identify the user as a FSP participant.
- ***Difficulty Obtaining Change.*** Participants can receive at most 99 cents in change when they use coupons.

The lack of flexibility is also a problem with EBT, but the other three problems are less severe for participants using EBT. Food stamp benefits are more secure with EBT because benefits cannot be accessed without a PIN. There is also some evidence that using EBT reduces the stigma of participating in the FSP.⁷ Obtaining change is not an issue with EBT.

Users of EBT do, however, cite the following drawbacks of EBT:

- Delays in grocery stores caused by the EBT machines not working or working only slowly.
- The card cannot be used if participants forget their PIN.
- Participants may have difficulties keeping track of their account balances.
- It is more difficult for an alternate person to do the shopping for the FSP participant. To use the card, the alternate shopper must know the participant's PIN. It is also difficult for the participant to limit the amount the alternate shopper spends.

Despite these problems, evaluations of several EBT demonstrations have found that between 64 percent and 89 percent of participants who have used both EBT and coupons prefer EBT (Beecroft et al. 1994, Koger-Jesup et al. 1994). However, Beecroft et al. (1994) reports that a slight majority of

⁷This is discussed in greater detail in Section F below.

elderly participants prefer EBT. Elderly participants may be more likely to forget a PIN, less able to keep track of account balances, and more likely to need an alternate shopper.

2. Lessons Learned From Outreach Efforts⁸

We identified four successful approaches to outreach: (1) disseminating information about the program, (2) using other programs to identify potential clients, (3) coordinating applications for benefits from different assistance programs, and (4) providing assistance with the application procedures. Some outreach efforts incorporate more than one approach. The success of the first two approaches suggests that informational problems are a factor in nonparticipation. The success of the third and fourth approaches suggests that the application process may discourage participation.

a. Disseminating Information

Information about the FSP and how to apply for food stamps has been successfully provided in the following ways:

- Posters or brochures placed in locations frequented by low-income persons
- Mailings of promotional materials, sometimes as inserts with utility bills
- Presentations (at senior centers, for example)
- Media coverage, including public service announcements on television and radio, stories on television, radio, or in newspaper, and televised phonathons
- Door to door canvassing
- Toll-free telephone hotlines

Most outreach efforts stress the eligibility requirements of the program. Informational materials are most effective when tailored to a particular group. For example, information targeted to the

⁸This section is based primarily on reports of individual outreach efforts written by the agencies or organizations that conducted the outreach.

working poor focuses on correcting misconceptions about the program commonly held by this group, such as employment automatically precluding FSP eligibility. Information targeted to the elderly stresses the potential eligibility of elderly persons even though they may receive Social Security, own their house or car, or have other assets. It also stresses that high medical expenses may pull their net income below the FSP eligibility limit.

Several outreach programs have emphasized the need for personal contact in providing information (for example, Bendick 1979). This personal contact may involve clients using a telephone hotline to talk to an outreach worker, or outreach workers providing information about the program at locations at which low-income persons are familiar, such as senior citizen community centers. In the SSA colocation project, volunteers or staff from the Area Agency on Aging or Title V Senior Service Community Programs were located at the SSA office to answer questions about programs serving the elderly, including the FSP, SSI, Medicaid, and Medicare.

b. Using Lists of Clients From Other Assistance Programs To Identify Potential Clients

Several FSP outreach programs use lists of participants in other assistance programs to identify persons who are likely to be eligible for food stamps. This is fruitful because persons eligible for one assistance programs are likely to be eligible for another. For example, in an outreach project in Portsmouth, Ohio, agency staff from 16 programs asked applicants during their intake interview whether they would be interested in applying for food stamps. Other outreach efforts, such as Project Bread in Massachusetts and the Penquis Community Action Program in Maine, have found that lists of benefit recipients from the Low-Income Home Energy Assistance Program (LIHEAP) are particularly useful in identifying potential FSP participants.

SSA has found this form of outreach successful in increasing SSI participation. SSA notifies all Social Security recipients who are about to reach 65 (and some disabled recipients) about their potential eligibility for SSI. A pilot project in the Atlanta SSA region found that using computer listings of food

stamp recipients who did not receive SSI was useful in identifying potential SSI recipients. In January 1990, the Iowa Department of Human Services sent information about the SSI program to FSP recipients with their food stamps, generating several hundred inquiries about SSI.

The success of this outreach approach supports the notion that a lack of knowledge about the FSP and its eligibility requirements is a significant factor in nonparticipation.

c. Coordinating Application Procedures Between Assistance Programs

Some outreach efforts have informed SSI recipients about their right to apply for food stamps at the SSA office (for example, Project Bread and the SSA colocation project). The success of these efforts suggests the importance of coordinating the application procedures between programs.

Another approach to outreach is developing one application form that covers all the major assistance programs. For example, the Georgia Common Access Project involved piloting a short (8 page) application form that was used as the application for five assistance programs. The success of this approach suggests that lengthy and multiple application forms may discourage participation.

d. Assisting With the Application Process

Successful outreach, especially to the elderly, must provide not only information but also one-on-one assistance with the application process (French 1991, Kirchoff 1991, Center on Budget and Policy Priorities 1991). This assistance may involve helping the client complete application forms, gathering documents for the client, going to the welfare office instead of or with the client, arranging for transportation for the client, and reminding the client to keep appointments. The importance of this help suggests that the application procedures themselves deter some potential FSP participants from applying.

Transportation problems are frequently cited as a reason for nonparticipation especially for the elderly. To solve these problems, some eligibility workers are stationed at places frequented by persons

who are likely to be eligible for food stamps (such as commodity distribution sites, homeless shelters, community feeding programs, and farmers markets). Some outreach efforts (for example, the Georgia Common Access Project) have obtained waivers to conduct certification interviews by persons other than certified FSP eligibility workers at places other than the FSP office. Other outreach efforts provide transportation to the FSP office or child care while the client is at the office.

F. STIGMA AND FSP PARTICIPATION

A frequently cited reason for nonparticipation in the FSP is the stigma associated with the receipt of food stamps. Because of this stigma, participants may suffer embarrassment about their receipt of food stamps and other psychological costs.

1. Sources of Stigma From Program Participation

In a seminal work on the sociology of stigma, Goffman (1963) defines stigma as an attribute that is associated with negative stereotypes and that distinguishes some persons as different from others. A stigma is associated with participation in the FSP and other welfare programs because of the perceived association between welfare receipt and negative character traits. The association need not be true--a stigma requires only a *perception* of an association (Waxman 1982). Strong evidence exists that there is a stigma associated with the receipt of food stamps.

a. The Stigma of Poverty

It is well-documented that poverty is itself a stigma. Surveys about perceptions of poverty find that the general public believes that people are poor primarily as a result of their own failings, rather than the failings of society, the state of the economy, or bad luck (Smith and Stone 1989, Feagin 1972).

For income-tested assisted programs, such as the FSP, receipt of benefits is a visible symbol of poverty. By revealing themselves as low-income, recipients are open to the negative stereotypes associated with poverty. Some authors (for example, Waxman 1982 and Ellwood 1988) have argued

that the more the program is targeted to those in poverty, the more stigmatizing the program will be. One reason that Unemployment Insurance (UI) benefits are not generally viewed as stigmatizing is that UI is not reserved for those who are in poverty.

b. The Stigma of Welfare Receipt

Welfare receipt is associated with a stigma that goes beyond its indication of poverty (Rainwater 1982). Welfare itself goes against individualism, a principle that many Americans strongly believe in (Gans 1988). Those who rely on government support rather than themselves are often perceived as failures. Specific character flaws sometimes perceived to be associated with welfare receipt include lack of motivation for work, lack of ability, lack of thrift and poor money management, substance abuse, dishonesty about their need for welfare, and general “loose” morals. Surveys have found that about 80 percent of Americans feel that too many people who are receiving welfare should be working (Kallen and Miller 1971, Feagin 1975). In a survey conducted in Boston and Kansas, Coleman, Rainwater, and McClelland (1978) found that most people referred to welfare recipients as the “lowest class in society.”

These negative perceptions about welfare receipt are also held by the recipients themselves, adding to the stigma they feel (Rainwater 1982). For example, during in-depth interviews with 55 welfare recipients, Rank (1994) found that most recipients believed that those on welfare were either partially or fully to blame for being on public assistance. (However, 82 percent of the respondents felt that they themselves were on welfare for reasons beyond their control.)

Much of the literature about the stigma of welfare receipt views stigma as a result of the perceived association between welfare receipt and negative character attributes. However, Besley and Coate (1992) suggest an additional source of stigma that they refer to as “taxpayer resentment.” Specifically, the psychological costs of receiving welfare result from taxpayers’ resentment about paying for welfare benefits.

Many studies have shown that most people who apply for welfare benefits feel anxiety or embarrassment during the application process (Rank 1994, Lipsky 1980, Goodsell 1984, Susser and Kreniske 1987). In a survey of AFDC recipients, Horan and Austin (1974) found that only 38 percent responded “never” to both of the following two questions: “How often do you feel ashamed about being on welfare?” and “How often do you feel bothered by being on welfare?” They found that about 17 percent responded “quite often” or “always” to both questions. In Rank’s study, slightly more than two-thirds of the welfare recipients reported specific instances of feeling that they were treated differently from the general public because they were receiving welfare; some also perceived animosity among family and friends, although this was less prevalent.

c. The Stigma Associated with Participation in the FSP

Some stigma is associated with receipt of food stamps in particular. A survey of low-income elderly persons in the SSI/Elderly Cashout Demonstration included questions designed to explore the importance of the stigma associated with the FSP (Hollenbeck and Ohls 1984). The survey asked FSP participants whether they were “bothered” or “embarrassed” by having to accept food stamps, and FSP-eligible nonparticipants whether they “would be bothered” or “would be embarrassed” by accepting food stamps. Respondents were also asked whether they felt that people in the community have less respect for food stamp recipients. The results, shown in Table II.3, suggest that stigma was felt by some, but not all, respondents. About one-fifth of participants reported being bothered by accepting food stamps. Similarly, about one-fifth reported that they were somewhat embarrassed to tell friends that they were receiving food stamps, and one-fifth believed that people in their community had less respect for food stamp recipients. Only a small proportion of participants, 6 percent, were “very” embarrassed to tell friends they were accepting food stamps.

Evidence suggests that providing the benefits in the form of food coupons increases the stigma of participating in the FSP above that of other welfare programs. In two cashout demonstrations in

TABLE II.3

RESPONSES OF PARTICIPANTS AND LOW-INCOME
NONPARTICIPANTS TO QUESTIONS DESIGNED
TO ELICIT INFORMATION ABOUT STIGMA

| Response | Percentage Giving Each Response | |
|---|---------------------------------|-----------------|
| | Participants | Nonparticipants |
| Are/would be bothered by accepting food stamps | 21% | 30% |
| Are/would be somewhat embarrassed to tell friends they are receiving food stamps | 19 | 32 |
| Are/would be very embarrassed to tell friends they are receiving food stamps | 6 | 15 |
| Believe that people in their community have less respect for food stamps recipients | 19 | 20 |

SOURCE: Hollenbeck and Ohls (1984, p.618).

Alabama and San Diego, food stamp benefits were provided in the form of checks rather than coupons. In both locations, FSP participants preferred receiving the benefits in the form of a check rather than coupons (Mazur and Ciemnecki 1991, Ponza and Cohen 1990). The reduction in the stigma associated with receiving food stamp benefits in the form of checks was the first reason cited by members of focus groups in San Diego County for this preference (Ponza and Cohen 1990). Similarly, focus group members in Alabama felt that receiving the benefits in the form of checks increased their self-esteem (Mazur and Ciemnecki 1991).

Two particular aspects of receiving coupons may increase stigma. First, coupons are highly visible to the clerks in the grocery stores and any customers in the checkout lines. Food stamp participants report receiving rude comments about the quantity and types of food they are purchasing when they use coupons (Rank 1994, Ponza and Cohen 1990). Difficulties of making change for the food stamp coupons may hold up the checkout lines and further highlights the customer as a food stamp recipient. Second, restrictions on what items can be purchased with food stamps may increase the stigma of using food stamps (Coser 1965).

Food stamp recipients interviewed in Rank's study and in focus groups held in the Cashout demonstrations describe some of the stigma associated with using food stamps.

- “You really do have to be a strong person to be able to use food stamps and not get intimidated by how people treat you when you use them. And even then it's still hard. You feel people's vibes, you know.....And I always feel like, ‘God, I'll be glad when I don't have to use these.’ They never ever leave change in there. So every time you check out, they always have to go up to the office to get change, so you got all these people waitin' in line--it's like, you know, ‘These food stamp people’” (Rank 1994, p.35).
- “They'll smile and be chatting with you, and then they see you pull out the food stamps--they just freeze up. And they scrutinize the food. I mean, I get really hyped. If it's a birthday or something, and I'm buying steak so that we can have a birthday dinner at home--ohh, the looks they get on their faces. Once I had a clerk tell me, ‘You buy really good food with your food stamps’ (laughter). Jeez” (Rank 1994, p.35).

- “It’s difficult when you’re holding food stamps, and they [customers, cashiers] are thinking, Oh, you’re one of *those* people. And just the way they look at you. They are thinking should I pity you, or you’re just a tax-stealing so and so. That’s the stigma attached to it” (San Diego Cashout Demonstration, Ponza and Cohen 1990, p.12).
- “With coupons, they try to limit you to make sure you buy real food with it. Like I’m being told, well you know why we are giving you food stamps, because otherwise you’d spend it on drugs or beer. [With food checks] I feel like going, well thank you for trusting me” (San Diego Cashout Demonstration, Ponza and Cohen 1990, p.12).
- “You get a bunch of groceries and they go ‘it must be food stamps day.’ You just feel better [with checks]” (Alabama Cashout Demonstration, Mazur and Ciemnecki 1991, p.27).

Many feel EBT reduces the stigma of FSP participation, because EBT is not as visible as coupons, it may be perceived by other customers as a regular debit or credit card, and use of a card is seen as more upscale than coupons. However, most participants in the EBT evaluations felt their treatment by store employees had not changed with the switch from coupons to EBT (Becroft et al 1994, Koger-Jesup et al. 1994). And less than 10 percent stated that they preferred EBT because it was less embarrassing (Koger-Jesup et al. 1994).

2. Impacts of Stigma on Program Participation⁹

While there is strong evidence that there is stigma associated with FSP participation, evidence suggests that stigma is not an important reason for nonparticipation. Only about 8 to 10 percent of FSP-eligible nonparticipants in the 1979 and 1986 PSID data cited attitudes related to stigma (such as “I was too embarrassed” or “I don’t like welfare”) as a reason for nonparticipation (GAO 1988a). Between two-thirds and three-quarters of these nonparticipants thought they might be eligible for food stamps and cited attitudes related to stigma as a reason for not applying; the other one-quarter to one-third

⁹Other impacts of stigma include a decreased psychological well-being of the participant; altered shopping behavior of participants, who may only go to stores out of their neighborhood or at off-peak hours; and a negative impact on the behavior of caseworkers.

thought they were not eligible and cited these attitudes when asked why they thought they were ineligible.

In the SSI/Elderly Cashout Demonstration, Hollenbeck and Ohls (1984) found that only about 14 percent of elderly FSP-eligible nonparticipating households answered an open-ended question of why they did not participate with a response about stigma. More nonparticipants than participants reported that they would be bothered about accepting food stamps or embarrassed to tell their friends they were receiving food stamps (see Table II.3), suggesting that stigma does play some role in nonparticipation.

Stigma may play a larger role in nonparticipation than this evidence suggests for four reasons:

1. Respondents may not cite factors related to stigma in answering questions about nonparticipation to avoid thinking about negative experiences they have had (Rainwater 1982, Spicker 1984).
2. When stigma is attached to participation in a program, collecting information about the program may identify a person as in need of assistance and be a stigmatizing experience in itself. Spicker (1984) argues that stigma may be a reason for the lack of knowledge about assistance programs. In the 1986 PSID data, about half of all eligible nonparticipant respondents did not think they were eligible for food stamps (GAO 1990).
3. About 14 percent of the FSP-eligible nonparticipant respondents to the 1987 PSID cited "did not need food stamps" as a reason for nonparticipation (GAO 1990). This perception of a lack of need for food stamps may be related to the stigma associated with food stamps.
4. Stigma may affect the work decisions of FSP-eligible households. Any such negative effect is not captured by asking *eligible* nonparticipants why they do not participate.¹⁰

¹⁰Recognizing the impact of stigma on the decision to work, Moffitt (1983) modeled the decision to work and the decision to participate in AFDC simultaneously. However, as Moffitt notes, "stigma" in his model includes *any* "cost" of participating, including the cost of applying for food stamps. He does not distinguish between the "psychic" costs of stigma and the costs time, money, and effort involved in applying for food stamps.

3. Measuring the Impact of Stigma on FSP Participation

It is extremely difficult to estimate the importance of stigma in reducing participation in welfare programs. People may be unwilling to admit to feelings of stigma because the admission is itself painful or because it would remind them of negative experiences (Rainwater 1982, Spicker 1984). These problems may be especially prominent in the context of a survey with highly structured questions.

The following approaches to estimating the importance of stigma in FSP nonparticipation have been suggested.

- Asking participants if they feel shame, embarrassment, or humiliation in applying for food stamps and eligible nonparticipants if they *would* feel shame, embarrassment, or humiliation if they applied for food stamps. This was the basic approach taken by Hollenbeck and Ohls (1984).
- Asking eligible nonparticipants whether they were “too proud” to apply for food stamps or whether “dislike of charity or welfare” discouraged them from applying.
- Asking participants about their experiences applying for food stamps. For example, did caseworkers contribute to the participants’ perceptions of stigma?
- Asking participants about their experiences using food stamps. For example, what was the reaction of grocery store staff and other customers in the checkout lines?
- Asking participants about the reactions of other persons--family, friends, acquaintances, coworkers, employers, and strangers--to finding out they participate in the FSP.
- Asking recent FSP participants who no longer participate about their experiences. People who no longer use food stamps may be more willing than current participants to describe painful feelings and experiences associated with participating (Rainwater 1982).
- Asking both participants and eligible nonparticipants about their perceptions regarding the beliefs others hold about FSP participation. A person’s beliefs about group norms is often viewed as a reflection of the person’s own values and beliefs (Spicker 1984).

G. SUMMARY

This section highlights the main points of this review.

1. Direct Evidence on the Reasons for Nonparticipation

Asking nonparticipants directly why they do not participate in the FSP provides the most useful type of evidence. Unfortunately, the available direct evidence is of poor quality for three reasons: (1) it is based on open-ended questions that elicit only general responses; (2) the sample sizes are small, preventing much analysis of the responses of subgroups; and (3) the data do not contain enough information to make a good approximation of FSP eligibility.

Although not conclusive, the direct evidence suggests the following.

- Information problems are a major deterrent to participation for the poor elderly and especially for the working poor.
- The main information problem is that households determined eligible with the available data perceive that they are ineligible for food stamps. This perception is mainly attributable to the belief that income or assets are too high. However, since these surveys do not contain sufficient information to make an accurate determination of eligibility, some of these nonparticipants may actually be ineligible for food stamps.
- Other frequently cited reasons for nonparticipation include not needing or wanting food stamps. Administrative costs and hassles associated with the program were also cited, but slightly less frequently.
- Most low-income nonparticipants who think they *are* eligible for food stamps have never tried to get food stamps because of perceived administrative costs and hassles or a perceived lack of need for food stamps.
- Working poor nonparticipants are more likely than other eligible nonparticipants to cite perceived ineligibility as a reason for nonparticipation. The main reasons for their perceived ineligibility are excess earnings, assets, and other income.
- Poor elderly households are most likely to cite a lack of need for food stamps as a reason for nonparticipation. However, information problems and administrative costs and hassles are also important for this group.

2. Static Analyses of FSP Participation

Static analyses examine the relationship between FSP participation and demographic and economic characteristics of eligible households at a specific time. Research addressing the relationship between FSP participation and characteristics of the working poor and poor elderly is scarce. The research on *all* FSP-eligible households has suggested that FSP-eligible households that do not participate are more likely than FSP participants to:

- Have elderly members
- Have earnings
- Have assets
- Not participate in other assistance programs
- Have higher income
- Be eligible for low food stamp benefits
- Be smaller in size
- Have no children
- Have a white household head
- Have a more educated household head

Most of these characteristics were consistently found to have an independent effect on participation in multivariate analyses of FSP participation. The exceptions are the size of the food stamps benefits, the presence of children, and the race of the household head. In some, but not all, studies, these characteristics were found to have no independent impact on FSP participation.

3. Dynamic Analyses of FSP Participation

Dynamic analyses examine the patterns of entry into and exit from the FSP. One of the main findings is that the dynamics of FSP participation differs considerably between the working poor and poor elderly.

- ***Working poor households experience high turnover in FSP participation.*** Even after controlling for other household characteristics, working poor households are less likely than other FSP-eligible households to enter the FSP program and more likely to leave. They participate in the program for a shorter period of time and have higher rates of recidivism.

- ***Poor elderly households, in contrast, experience low turnover in FSP participation.*** Even after controlling for other household characteristics, poor elderly households are less likely than other FSP-eligible households to enter the FSP program, but they are also *less* likely to leave. They participate in the program for a longer period of time and have lower rates of recidivism.

Consistent with the differences in the dynamics of FSP participation, working poor and poor elderly households also differ in the dynamics of FSP eligibility. Working poor households have a high turnover in eligibility; poor elderly households have a low turnover in eligibility.

The literature that examines the factors that “trigger” entry into and exit from the program has concluded that:

- A change in household income (other than income from assistance programs) is the most common event that accompanies both entry into and exit from the FSP. The working poor are more likely and the poor elderly are less likely than other FSP-eligible households to experience a change in income associated with entry into and exit from the program.
- While a change in household composition is less common than a change in income, it is more likely than any other event to lead to a household entering the FSP.
- It is harder to identify events that trigger entry into or exit from the program for the poor elderly than it is for other groups. Poor elderly households are less likely than other households to experience changes in income or changes in household composition when entering into or exiting from the FSP.

4. Program Features, Outreach, and FSP Participation

The most important findings from the literature on program features are:

- Nearly one-third of all people who inquire about the FSP do not complete the application process. A higher proportion of people from working poor households do not complete the application process. While some of the people who drop out of the process may have found they are ineligible for food stamps, others may have been deterred from participating by the application process.

- Significant costs in terms of time, money, and hassle are involved in the application process. On average, the application process takes a total of nearly 5 hours and involves out-of-pocket expenses of \$10.40. Most of these expenses result from transportation costs or forgone wages. While half of the households spend \$3.60 or less, some households (mainly those who forgo wages) spend considerably more.
- Some problems are experienced with the issuance and use of food stamp benefits. Fewer problems are experienced when food stamps are mailed directly to the participant. Participants prefer EBT to coupons.
- FSP regulations require that caseworkers make special arrangements (such as telephone interviews) for working persons and elderly persons during the application process, but they are infrequently used. This is because caseworkers do not offer to make the special arrangements or inform applicants about their availability.

Past outreach efforts offer valuable lessons:

- Providing eligibility information is important and should be targeted to specific demographic groups.
- In addition to providing information about eligibility, successful outreach to the elderly should provide one-on-one assistance throughout the application process.

5. Stigma

The main conclusions we drew from the literature on stigma are:

- The general public and FSP participants perceive stigma associated with FSP participation.
- While the stigma of FSP participation probably reduces participation, the evidence suggests that its impact is not a key factor. However, this evidence may understate the true role of stigma on FSP participation.

III. CHARACTERISTICS ASSOCIATED WITH FSP PARTICIPATION

In this chapter, we investigate the demographic and economic characteristics associated with participation in the FSP. We have three main goals for our analysis: first, to compare the characteristics of FSP-eligible nonparticipant households with participant households; second, to identify the independent effects of demographic and economic characteristics on FSP participation and to see whether they explain the low participation rates of the working poor and poor elderly; and third, to determine whether working poor and poor elderly households differ from other FSP-eligible households in the observed differences between participants and nonparticipants and the effects of characteristics on FSP participation.

Much of our analysis consists of comparing the characteristics of FSP-eligible nonparticipants to those of participants. For example, we compare the percentage of FSP-eligible *nonparticipant* households with income above the poverty line to the percentage of FSP *participant* households with income above the poverty line. We make these comparisons for all FSP-eligible households and for two subgroups: (1) the working poor, which we define as FSP-eligible households with earnings, and (2) the poor elderly, which we define as FSP-eligible households with one or more members age 60 years or older.

While these comparisons provide an informative picture of participant and nonparticipant households, they cannot be used to identify the independent effect of income or other characteristics on participation. Such effects are, however, identified in our multivariate analysis. This analysis is based on an FSP participation equation that we estimate for the full sample of FSP-eligibles and for the working poor and poor elderly subgroups. The data for the comparisons and the multivariate analysis come from a cross-section of FSP-eligible households from the Survey of Income and Program Participation (SIPP) for the month of January 1992.

Section A describes the data used in the analysis. Section B provides a descriptive analysis of characteristics by participation status. Section C examines the relationship between characteristics and participation in the FSP using multivariate analysis. Section D provides a summary of our findings.

A. DESCRIPTION OF THE DATA

This section describes the SIPP data and how we obtained the sample of FSP-eligible households used in the analysis of characteristics associated with participation. The discussion draws heavily on Martini (1992) and Trippe and Sykes (1994).

1. The SIPP Data

SIPP is a nationally representative longitudinal survey of households in the U.S. that provides detailed monthly information on income, labor force activity, and program participation. A new sample of households, referred to as a *panel*, is added to SIPP in February of each year. The panel is divided into four groups, called *rotation groups*, and each month one group is interviewed. One four month cycle of interviews through the rotation groups is called a *wave*, and each panel includes eight waves. Given this design, households are interviewed at four-month intervals for a period of two and one-half years. In these interviews, a core questionnaire is used to collect information on each household and its members for the four months that precede the interview date (the period since the last interview). In most waves, the core questionnaire is supplemented with questions on a particular topic, called a *topical module*, that varies from wave to wave.

One feature of the SIPP design important for this study is that the panels overlap for part of their duration. As a result, cross-sectional samples can include observations from more than one panel at the point of overlap, thereby generating larger sample sizes. In our analysis, we combine data from Wave 7 of the 1990 SIPP panel and Wave 4 of the 1991 SIPP panel for the month of January 1992. The

topical modules administered in these two waves focus on issues pertinent to the determination of FSP eligibility such as assets; vehicle ownership; and shelter, medical, and dependent care expenses.

2. Obtaining the Sample of Eligible Households

To investigate the characteristics associated with FSP participation, we require a sample of households that are eligible to participate in the FSP. This sample is obtained through imputation, since eligibility is not observed for all households. We impute FSP eligibility using the MATH[®] (or FOSTERS) microsimulation model and SIPP data (MATH SIPP). This model replicates the actual FSP eligibility determination process by mimicking the work of an FSP caseworker as closely as possible. Based on FSP eligibility rules and the information in SIPP, the model simulates whether each SIPP household is eligible for the FSP. If the household is eligible, the model then calculates the potential FSP benefit to which it is entitled. Details of the MATH SIPP model and the file development process are provided in Trippe and Sykes (1994) and Trippe et al. (1992).

While SIPP contains more information on the variables necessary for determining FSP eligibility than any other available household survey, it does not contain everything that is needed. As a result, the simulation procedure cannot perfectly replicate the eligibility determination process of an FSP caseworker. Six limitations are noteworthy:

1. **Unit Definition.** SIPP does not provide all of the information needed to determine the food stamp unit (FSU) as defined by the program, such as which household members purchase and prepare food together.
2. **Countable Assets.** SIPP does not explicitly provide all the measures needed to estimate countable assets, such as cash on hand and vehicular equity.
3. **Gross Income.** Income is likely to be underreported in SIPP; the income definition used by the FSP differs from that used in SIPP; aggregate FSU income calculations may differ from a caseworker's calculations due to the limitations in defining the FSU in SIPP.
4. **Net Income.** SIPP definitions of shelter and dependent care expenses used to compute net income differ slightly from the FSP definitions.

5. **Disability Status.** Reporting and measurement errors in SIPP may somewhat distort the number of disabled individuals identified in the simulation.
6. **Measurement Error.** Underreporting and misclassifying income and program participation in SIPP can affect the simulation.

The net result of these discrepancies in the estimate of the number of eligible households is uncertain. For example, underreporting of gross income will tend to bias upward the estimates of the number of eligible households, while imprecise measures of expenses may overstate net income and hence bias downward the estimates of eligibles. Trippe and Sykes (1994) discuss this issue further.

3. Some Data Issues

a. Measuring Characteristics

In analyzing household characteristics associated with FSP participation using the MATH SIPP data, one must choose whether to define these characteristics according to the census definition of household, which corresponds to all individuals in the dwelling unit, or according to the FSU, which may be a subset of the census household. The important point for our analysis is that the amount of information in SIPP that can be used to simulate the FSU is directly related to whether the household is participating in the FSP.¹ Hence, in simulating the FSU, MATH SIPP treats FSP participants and nonparticipants asymmetrically.

The problem with using the FSU definition of the household is directly related to this asymmetry. For instance, characteristics of the FSU are measured on the basis of a criterion that is related to participation status. This would undeniably introduce bias into an estimate of the relationship between characteristics and FSP participation. That is, FSU characteristics might appear to be associated with participation status only because they are defined differently for participants than for nonparticipants.

¹For households that report FSP receipt, there is information in SIPP on FSP unit composition; for households that receive cash assistance (but not food stamps), there is information in SIPP on the cash assistance unit; for all other households there is no relevant program unit composition data in SIPP.

Since relating characteristics to participation is the central goal of our analysis, we measure household characteristics using the census definition of household, which is uniform for participants and nonparticipants alike.

The main drawback of using the census definition is that measured characteristics do not precisely match the characteristics of what the FSP and the simulation model count as a “unit” for the purposes of eligibility determination. For example, what we identify as an FSP-eligible household *with earnings* could be a household in which the FSU as defined by the program is a subset of the census household, and this FSU does not include the person with earnings. In addition, there is no comparable census household measure for the food stamp benefit level, and so we must use the FSU-based variable computed by MATH SIPP. We believe these limitations are considerably less severe than the bias that would be induced by using the FSU definition.

b. Food Stamp Benefits

Like FSP eligibility, the amount of food stamp benefits cannot be observed for households that do not participate in the FSP. In order to include the food stamp benefit in our analysis of FSP participation, we use the simulated food stamp benefit level from MATH SIPP. We use the potential benefit amount for all households because using reported benefits for participants and simulated benefits for nonparticipants would create an asymmetry that could bias our analysis. The benefit level simulated by MATH SIPP is equal to the maximum FSP benefit less 30 percent of net income, with a minimum guaranteed benefit of \$10 for one-person and two-person households. Because of measurement error and the lack of some information in SIPP, the simulation is imperfect. However, we believe it represents a substantial improvement over regression-based imputation or the use of crude proxies, such as household size.

c. Multiple Food Stamp Units

In the FSP eligibility file generated by MATH SIPP, 96 census households appear more than once because multiple FSUs report that they receive food stamps. Because we use the Census definition of the household in our analysis, it is appropriate to have only one observation per Census household in our sample. Thus, we retain only one observation for each census household.² The measurement of FSP participation status and household economic and demographic characteristics is unaffected by eliminating multiple FSUs, since these variables are measured at the census household level. However, the measurement of the benefit is affected, since each FSU has a simulated benefit amount. To address this, we compute the total benefit as the sum of the FSU benefit over the FSUs in the household.

d. Household Reference Person

When examining the relationship between FSP participation by households and characteristics that are individual-specific, such as age or race, it is necessary either to use the characteristics of one household member or to create some average measure for the household. We have chosen to follow Martini (1992), using the characteristics of the household reference person in SIPP. The reference person is the person in whose name the home is owned or rented; if the home is owned jointly by a married couple, the reference person may be either spouse (U.S. Department of Commerce 1991).³

²This reduced the number of observations from 5,035 unique FSUs to 4,934 unique census households. In the FSP eligibility file, there were 92 households containing 2 eligible food stamp units, 3 households containing 3 eligible food stamp units, and 1 household containing 4 eligible food stamp units.

³We acknowledge the fact that the reference person's characteristics may not be representative of other members of the household.

e. Underreporting Participation

We use reported FSP participation in SIPP as our measure of participation. Unfortunately, there is solid evidence that household survey respondents underreport participation in the FSP (as well as in other welfare programs).⁴ As a result, some households that are simulated to be eligible for the FSP and that actually are participating in the FSP are classified as nonparticipants because they do not report participation.⁵ Whether underreporting biases estimates of the determinants of participation depends crucially on whether it is correlated with characteristics that affect participation. Martini (1992) compared 1985 SIPP data to the FSP's Integrated Quality Control System (IQCS) data, which is not affected by underreporting, to gauge the relationship between underreporting and household characteristics. Martini found that most of the differences in characteristics--such as age, race, household size, gross income, and FSP benefits--between the two data sets were quite small, suggesting that bias due to underreporting is unlikely to be a major concern.

In studies of aggregate FSP participation rates, Trippe and Sykes (1994), Doyle and Beebout (1988), and Doyle (1990) have addressed underreporting by using counts of participants from FSP administrative data, rather than survey data, as the numerator of the participation rate. This approach is not possible here, since our analysis requires information on FSP eligibility and participation for each individual household.

⁴Trippe and Sykes (1994) report that FSP participation was underreported by 22 percent in SIPP in January 1992. This represented a larger increase over the 14 and 12 percent underreported in January 1988 and January 1989 respectively.

⁵The opposite phenomenon takes place as well. Some households that report participating in the FSP are simulated to be ineligible. We exclude these "seemingly ineligible participants" from the analysis in order to provide symmetry with households for which the same "error" is made in the eligibility simulation process (that is, they are simulated to be ineligible when in fact they are eligible), but that do not report participation. These latter households are necessarily excluded, since the error cannot be detected. Excluding "seemingly ineligible participants," we avoid an asymmetry that could bias the analysis.

4. Sample and Subgroups for Analysis

Our analysis is based on the sample of 4,934 FSP-eligible census households in the MATH SIPP file for January 1992 and two particular subgroups: (1) 1,864 working poor households, defined as all FSP-eligible census households that reported earnings in January 1992 and (2) 1,770 poor elderly households, defined as all FSP-eligible census households that contained at least one person age 60 years or older in January 1992.

Weighted counts of households in the sample and the two subgroups are shown in Table III.1. Our counts of FSP-eligible households are similar to those obtained by Trippe and Sykes (1994) using January 1992 SIPP data (shown in Table II.1), although there are some differences due to the fact that we use *census households* while Trippe and Sykes (1994) used *food stamp units*. Our count of total participants (6.403 million), however, is substantially lower than that obtained by Trippe and Sykes (1994) (9.631 million). This difference is primarily due to the fact that our count of participants is based on *reported* participation in SIPP, which is affected by underreporting, while Trippe and Sykes' estimates are based on the Food Stamp Program Summary of Operations data, which is not affected by underreporting. However, the counts of the poor elderly and working poor subgroups of participants are relatively similar between the SIPP data used here and the administrative data used by Trippe and Sykes (1994). Consequently, total participants account for a considerably smaller percentage of total eligibles in the present study (46.7 percent) than in the Trippe and Sykes (1994) study (68.9 percent), while the corresponding figures for poor elderly and working poor participants as a percent of eligibles in these groups are relatively similar across the two studies.

B. CHARACTERISTICS OF FSP PARTICIPANTS AND ELIGIBLE NONPARTICIPANTS

In this section, we provide indirect evidence for the reasons for nonparticipation in the FSP by comparing the characteristics of FSP participants to FSP-eligible nonparticipants. Our analysis involves three key types of comparisons: (1) we compare all FSP participants to all FSP-eligible nonparticipants

TABLE III.1

NUMBER OF FSP-ELIGIBLE HOUSEHOLDS BY FSP PARTICIPATION
STATUS AND SUBGROUP

| | Number of Households in Thousands | | | Reported Participation Rate |
|---------------|-----------------------------------|--------------|-----------------|--------------------------------|
| | All Eligibles | Participants | Nonparticipants | |
| All Eligibles | 13,749 | 6,403 | 7,347 | 46.7% |
| Poor Elderly | 4,866 | 1,582 | 3,284 | 32.5 |
| Working Poor | 4,959 | 2,044 | 2,915 | 41.2 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Counts are based on weighted data.

to identify characteristics that are relatively more common among nonparticipants in general; (2) we compare poor elderly participants to poor elderly nonparticipants and working poor participants to working poor nonparticipants to identify characteristics common to nonparticipants in these subgroups; this comparison is also used to examine whether poor elderly (or working poor) nonparticipants differ from poor elderly (or working poor) participants in the same ways that nonparticipants differ from participants in the general population of FSP-eligible households; (3) we compare all FSP-eligible poor elderly (or working poor) to all eligible nonparticipants to identify characteristics common to the poor elderly (or working poor) and eligible nonparticipants in general.

These comparisons cover the following broad range of household characteristics that are potentially related to reasons for nonparticipation: household income level, income sources, the receipt of government transfers such as Aid to Families with Dependent Children (AFDC), the FSP benefit amount, household size and composition, location, employment status, age, gender, race/ethnicity, and marital status. In our analysis, we compare the percentage of households displaying each characteristic of interest from one group to the next.

1. Poor Elderly and Working Poor Status

As shown in Table III.2, FSP-eligible households with elderly (poor elderly) and those with earnings (working poor) are each more prevalent among nonparticipants than among participants in the SIPP sample analyzed here. While poor elderly households account for 45 percent of eligible nonparticipants, they account for only 25 percent of participants. Similarly, while working poor households account for 40 percent of eligible nonparticipants in the data, they account for 32 percent of participants. This pattern is consistent with the estimates reported by Trippe and Sykes (1994). However, those authors report more pronounced differences; for example, their data (as shown in Table II.1) imply that poor elderly households account for 70 percent of nonparticipants and only 16 percent of participants. This difference between the present study and Trippe and Sykes (1994) results from

TABLE III.2

PERCENT DISTRIBUTION OF POOR ELDERLY AND
WORKING POOR HOUSEHOLDS

| Household Type | Percent Distribution of All FSP-Eligible Households | | |
|----------------|--|--------------|-----------------|
| | All Eligible | Participants | Nonparticipants |
| Poor Elderly | 35.4 | 24.7 | 44.7 |
| Working Poor | 36.1 | 31.9 | 39.7 |
| Sample Size | 4,934 | 2,342 | 2,592 |

SOURCE: January 1992 SIPP Eligibility File

NOTE: Household weights are used.

having quite similar counts of eligibles and of working poor and poor elderly participants but quite different counts of total participants (and hence nonparticipants) in the two studies; consequently, the percentage of participants (nonparticipants) belonging to each subgroup differs considerably between the studies.

2. Household Income and Economic Resources

There are at least three important reasons for nonparticipation that are likely to be connected to the household's total income and other economic resources such as pensions, assets, and home ownership. First, FSP-eligible households with greater economic resources may perceive that they do not need food stamps. Second, such households may not know that they are eligible or may believe that they are ineligible. Those with assets, in particular, may not be aware that it is possible to have assets and still be eligible. Third, households with higher income will be eligible for low benefits, and they may not feel that the benefit is worth the cost and hassle of participation.

The results of comparisons of households by FSP participation status are broadly consistent with these three connections between nonparticipation and household economic resources. Overall, households that do not participate in the FSP have a higher total income and are more likely to have other economic resources than those that do participate (Table III.3). This is illustrated in several ways. First, household total income above the poverty line is *more* common among eligible nonparticipants than among participants, while positive household income at or below 75 percent of the poverty line is *less* common among eligible nonparticipants than among participants. This is true for all eligibles and both subgroups. Second, pensions, assets, and homeownership are more common among nonparticipants than among participants. Again, this is true for all eligibles and for each subgroup. Each of these three types of financial resources is relatively more common among the poor elderly than the working poor. We also observe larger differences by participation status in the existence of these resources among the poor elderly. For example, poor elderly nonparticipants are nearly twice as

TABLE III.3

HOUSEHOLD INCOME, ECONOMIC RESOURCES, AND GOVERNMENT TRANSFERS
OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|-------------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Income as % of Poverty | | | | | | | | | |
| 0% | 4.9 | 2.1 | 7.2 | 0.7 | 0.2 | 1.0 | 0.0 | 0.0 | 0.0 |
| 1-50 % | 18.1 | 26.3 | 10.9 | 5.3 | 5.9 | 5.0 | 10.0 | 11.3 | 9.1 |
| 51-75 % | 17.6 | 23.0 | 12.9 | 12.2 | 14.3 | 11.3 | 14.4 | 17.0 | 12.6 |
| 76-100 % | 24.3 | 23.5 | 24.9 | 35.5 | 43.0 | 31.9 | 21.2 | 21.2 | 21.2 |
| 101% or more | 35.2 | 25.0 | 44.0 | 46.3 | 36.7 | 50.9 | 54.3 | 50.4 | 57.0 |
| Economic Resources | | | | | | | | | |
| Pension Present | 6.2 | 3.3 | 8.6 | 14.9 | 9.7 | 17.4 | 3.2 | 3.2 | 3.3 |
| Assets Present | 19.3 | 12.9 | 24.8 | 27.3 | 20.8 | 30.5 | 23.7 | 22.2 | 24.7 |
| Home is Owned | 35.2 | 25.6 | 43.7 | 51.6 | 43.8 | 55.4 | 38.1 | 34.1 | 40.9 |
| Government Transfers | | | | | | | | | |
| AFDC | 22.4 | 44.4 | 3.2 | 4.2 | 11.2 | 0.9 | 18.2 | 37.2 | 5.0 |
| SSI | 18.7 | 24.8 | 13.4 | 32.1 | 57.9 | 19.6 | 11.2 | 12.3 | 10.3 |
| Other Welfare | 5.5 | 9.6 | 1.8 | 2.9 | 7.1 | 0.9 | 4.5 | 7.7 | 2.3 |
| WIC | 6.5 | 11.0 | 2.6 | 0.8 | 2.1 | 0.2 | 7.8 | 13.1 | 4.1 |
| Housing Assistance | 21.2 | 30.0 | 13.5 | 21.3 | 24.4 | 19.9 | 11.3 | 17.4 | 7.1 |
| Veteran's Benefits | 3.4 | 2.5 | 4.1 | 7.2 | 7.4 | 7.1 | 1.3 | 0.8 | 1.6 |
| Social Security | 35.0 | 25.5 | 43.3 | 82.9 | 75.3 | 86.6 | 13.0 | 12.6 | 13.4 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

likely as poor elderly participants to have pension income, while working poor nonparticipants are only slightly more likely than working poor participants to have pension income.

There is one exception to the pattern that nonparticipants have greater financial resources than do participants. In particular, nonparticipant households are more likely to have reported an income of zero than are participant households. As pointed out by Martini (1992), *underreporting of income* provides a plausible explanation for this. If the number of households that truly have zero income is very small and the number of households whose income is high enough to make them ineligible for the FSP is very large, then if even a very small *proportion* of the truly ineligible households erroneously report zero income (and are thus misclassified as FSP-eligible), the absolute number of these households could easily be large enough to outweigh the number of households that truly have zero income; in turn, this would create a perverse pattern of relatively more zero-income nonparticipants than zero-income participants. In addition, a recent study by Wemmerus and Porter (1996) that examines zero-income households in SIPP has concluded that households reporting zero-income are not always the least financially viable. Many of these households have zero income for only a short period of time (due to a job loss, illness, or divorce, for example), and often have relatively high assets. This is consistent with our finding that nonparticipants are more likely than participants to report zero income.

3. Receipt of Government Transfers

There are two main reasons why we expect that FSP participation may be associated with the receipt of other government transfers or public assistance, such as AFDC, Supplemental Security Income (SSI), and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). First, other government programs may provide recipients with information about the FSP and how to apply; second, households that most need assistance and are willing to incur the costs of program participation are likely to participate in the FSP and in other programs.

The results of our comparisons are broadly consistent with these links between FSP participation and receipt of other government transfers. Specifically, we find that households that receive other government transfers are less common among FSP-eligible nonparticipants than among FSP participants (Table III.3). This pattern holds for all eligibles, the working poor, and the poor elderly for the following government transfers:

- AFDC
- SSI
- Other means-tested cash welfare
- WIC
- Housing assistance: public housing or rent subsidies

In many instances, we observe differences of at least a factor of two between the percentage of FSP participants that receive these transfers and the percentage of FSP nonparticipants that receive them. This is true for (1) AFDC, among all eligibles and each subgroup; (2) SSI, among the poor elderly; (3) other means-tested welfare, among all eligibles and each subgroup; (4) WIC, among all eligibles and each subgroup; and (5) housing assistance, among all eligibles and the working poor.

While each of these five transfers is relatively rare among FSP-eligible nonparticipants, we do not observe a uniform pattern when we compare the subgroups to all FSP-eligible nonparticipants. Not surprisingly, SSI is more than twice as common among the poor elderly than among all nonparticipants, while this is not true for the working poor. Housing assistance is also more common among the poor elderly. In contrast, AFDC, other welfare, and WIC are more than twice as common among the working poor than among all nonparticipants, while this is not true for the poor elderly.

In contrast to the preceding five government transfers, the receipt of two other transfers--veteran's benefits and Social Security--is generally *more* common among FSP-eligible nonparticipants than among participants. One possible explanation for the difference is that, unlike the five other transfers, these two are not "welfare" programs for low-income households. Consequently, households receiving

veteran's benefits and/or Social Security may not obtain better information about or access to the FSP than nonrecipients of these two transfers. Also, they are unlikely to need food stamps more than those without veteran's benefits or Social Security income.

4. Food Stamp Benefits

Low benefits is a reason commonly cited for nonparticipation in the FSP. Households eligible for low benefits may perceive that the benefits are not worth the costs associated with applying for and using food stamps. Further, households eligible for low benefits tend to have higher income and assets. Nonparticipation in this case may be connected to perceived lack of need and perceived ineligibility for the FSP.

In this section, we compare the food stamp benefit level by FSP participation status using two measures of the benefit: (1) the benefit amount in dollars and (2) the benefit as a percentage of the maximum benefit, which normalizes the benefit for household size. In each case, the food stamp benefit variable is simulated for all households, regardless of whether they are receiving food stamps.

We find that the FSP benefit amount in dollars is lower for nonparticipants than for participants across the board (Table III.4). However, the distribution of benefits is quite different across groups:

- *Among all FSP-eligibles*, the average benefit is \$144; there is a larger share of nonparticipants than participants eligible for \$150 or less per month.
- *Among the poor elderly*, the average benefit is only \$70.50; in this group, there is a larger share of nonparticipants than participants eligible for \$10 or less per month.
- *Among the working poor*, the average benefit is \$161; there is a larger share of nonparticipants than participants eligible for \$300 or less per month.

In examining the benefit level as a percentage of the maximum, we find additional evidence that nonparticipants are eligible for relatively low FSP benefits and that the elderly are eligible for particularly low benefits (Table III.4).

TABLE III.4

POTENTIAL FOOD STAMP BENEFITS OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS

| Potential Benefit Amount | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|--------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| In Dollars | | | | | | | | | |
| \$10 or less | 12.9 | 6.6 | 18.4 | 27.0 | 15.6 | 32.5 | 8.0 | 6.2 | 9.2 |
| \$11-50 | 13.5 | 10.4 | 16.2 | 25.4 | 27.3 | 24.4 | 9.9 | 6.2 | 12.6 |
| \$50 or less | 26.4 | 16.9 | 34.6 | 52.4 | 43.0 | 57.0 | 17.9 | 12.4 | 21.8 |
| \$51-100 | 14.6 | 11.6 | 17.1 | 18.1 | 21.0 | 16.8 | 16.7 | 10.4 | 21.1 |
| \$101-150 | 20.3 | 16.6 | 23.5 | 18.8 | 20.5 | 18.0 | 18.3 | 16.2 | 19.8 |
| More than \$150 | 38.7 | 54.8 | 24.7 | 10.7 | 15.6 | 8.3 | 49.9 | 61.1 | 37.3 |
| \$151-200 | 8.8 | 10.7 | 7.1 | --- | --- | --- | 14.0 | 14.0 | 14.1 |
| \$201-300 | 19.7 | 27.7 | 12.8 | --- | --- | --- | 21.5 | 16.7 | 28.3 |
| More than \$300 | 10.2 | 16.4 | 4.8 | --- | --- | --- | 11.6 | 18.8 | 6.6 |
| Average Benefit (\$) | 144.1 | 184.6 | 108.8 | 70.5 | 89.0 | 61.7 | 161.3 | 198.2 | 135.4 |
| As % of Maximum | | | | | | | | | |
| 0-25 % | 23.5 | 14.2 | 31.7 | 42.6 | 31.5 | 47.9 | 20.5 | 13.9 | 25.2 |
| 26-50 % | 17.9 | 15.1 | 20.4 | 18.4 | 20.8 | 17.3 | 25.3 | 18.7 | 29.9 |
| 51-75 % | 19.6 | 24.6 | 15.2 | 13.3 | 17.1 | 11.5 | 24.2 | 28.2 | 21.5 |
| 76-99 % | 17.0 | 24.8 | 10.2 | 8.7 | 12.5 | 6.9 | 16.4 | 21.3 | 13.0 |
| 100 % | 21.8 | 20.9 | 22.6 | 16.8 | 17.6 | 16.5 | 13.3 | 17.3 | 10.4 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

- *Among all eligibles*, 23.5 percent of households are eligible for no more than 25 percent of the maximum; nonparticipants are more likely to be eligible for benefits at or below 50 percent of the maximum.
- *Among the poor elderly*, 42.6 percent of households are eligible for no more than 25 percent of the maximum; nonparticipants are more likely to be eligible for benefits at or below 25 percent of the maximum.
- *Among the working poor*, 20.5 percent of households are eligible for no more than 25 percent of the maximum; nonparticipants are more likely to be eligible for benefits at or below 75 percent of the maximum.

5. Household Size and Composition

a. Household Size

There are at least two reasons for nonparticipation in the FSP that may be connected to household size. First, small households are eligible for lower benefits than are larger households, but they face the same costs of applying for food stamps and obtaining the food stamps each month; hence, small households are more likely to perceive that the benefit is not worth the cost (Martini 1992). Second, larger households can buy food at a lower unit cost; hence, food stamps may be of greater value to them than to smaller households (GAO 1988b). Both of these reasons suggest that smaller households would be less likely to participate.

As shown in Table III.5, nonparticipating households do tend to be smaller than participating households. Relative to households that participate in the FSP, nonparticipating households are more likely to have one or two members and less likely to have three, four, or five or more members. This is true for all eligibles, the working poor, and the poor elderly.

While all eligibles and both subgroups display the same pattern regarding household size and participation status, differences arise when we compare all FSP-eligible nonparticipants to all elderly and to all working poor respectively:

- *Among all eligible nonparticipants*, one-person households are the most common household type, accounting for 47.6 percent of households

TABLE III.5

HOUSEHOLD SIZE AND COMPOSITION OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|------------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Household Size | | | | | | | | | |
| 1 Person | 35.4 | 21.3 | 47.6 | 64.0 | 55.3 | 68.1 | 12.8 | 4.0 | 19.0 |
| 2 People | 20.0 | 18.9 | 20.9 | 21.6 | 20.4 | 22.2 | 19.3 | 13.8 | 23.1 |
| 3 People | 15.9 | 20.3 | 12.0 | 5.7 | 6.2 | 5.5 | 20.0 | 21.3 | 19.0 |
| 4 People | 12.4 | 16.8 | 8.6 | 2.8 | 5.7 | 1.3 | 19.0 | 22.3 | 16.6 |
| 5 People or More | 16.4 | 22.6 | 10.9 | 5.9 | 12.5 | 2.8 | 29.0 | 38.6 | 22.3 |
| Household Composition | | | | | | | | | |
| Children Present | 49.0 | 67.3 | 33.0 | 10.2 | 19.3 | 5.8 | 69.5 | 83.1 | 59.9 |
| Nonelderly Disabled Present | 10.7 | 14.0 | 7.8 | 4.9 | 7.7 | 3.6 | 8.2 | 8.8 | 7.8 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

- *Among the poor elderly*, one-person households are even more common, accounting for nearly 64 percent of households; if we add in households with two people, we account for just over 85 percent of all elderly households.
- *Among the working poor*, however, one-person households are the least common household size, accounting for less than 13 percent of all households; in this group, the most common household size category is five or more members.

Thus, while small households are relatively common among FSP nonparticipants in general and among the poor elderly, they are not prevalent among the working poor.

b. Household Composition

Children. The presence of children may be related to FSP participation in several ways. For example, adults may be willing to go without FSP benefits but not willing for their children to do so (GAO 1988b); this suggests that households with children would be more likely to participate. In addition, low-income households with children may have more information about and access to the FSP through participation in other public assistance programs targeted to these households, such as AFDC and WIC.

The results of comparisons are consistent with the above reasoning. That is, children are more prevalent among participant than nonparticipant households (Table III.5). This is true for the poor elderly, the working poor, and all FSP-eligibles. While this pattern is observed for each group, the overall incidence of households with children differs considerably between the subgroups. In particular, the percentage of households with children is 10 percent for the poor elderly and 69 percent for the working poor. Among all eligibles the percentage of households with children is 49 percent. Thus, with the respect to the presence of children, poor elderly and working poor households differ from all FSP-eligible households in opposite directions.

Nonelderly Disabled. In this study, a person is considered *nonelderly disabled* if he/she is nonelderly (under 60 years) and either (1) is receiving SSI or (2) because of a disability is receiving

Social Security, veteran's benefits, railroad retirement, or government pension income; this definition comes from the MATH SIPP model. The presence of nonelderly disabled in the household may be related to FSP participation for at least two reasons. First, if the disabled are recipients of other government transfers, they may have better information about or access to the FSP, particularly in the case of SSI recipients. On the other hand, the disabled are apt to have problems with mobility, reducing their access to the FSP.

Consistent with the first reason, nonelderly disabled members are relatively more prevalent among participating households than among nonparticipating households (Table III.5). This is true for all FSP-eligibles as well as the poor elderly and working poor subgroups. Further, the relative absence of nonelderly disabled persons is a characteristic that FSP-eligible nonparticipant households share with both the working poor and poor elderly subgroups; only 7.8 percent of all nonparticipants, 8.2 percent of all working poor, and 4.9 percent of all elderly households contain a nonelderly disabled member.

Poor Elderly Households. Our analysis of poor elderly households and their relationship to participation status focuses on six household types that encompass all poor elderly households: (1) an elderly widow living alone, (2) an elderly widower living alone, (3) an elderly person living alone who is not a widow(er), (4) one elderly person and one other nonelderly person, (5) two elderly living together, and (6) a residual category of households with three or more persons at least one of whom is elderly. As shown in Table III.6, nearly 37 percent of all elderly FSP-eligible households consist of a widow living alone. The next most common household composition is an elderly person living alone who is neither a widow nor a widower, at 21.3 percent.

Three household types are relatively more common among nonparticipants than participants: a widow living alone, a widower living alone, and two elderly living together. A common feature of these three types is that the household contains only elderly members (either one or two persons); this suggests that reduced contact with nonelderly persons may lower the likelihood of FSP participation.

TABLE III.6

COMPOSITION OF FSP-ELIGIBLE HOUSEHOLDS WITH ELDERLY

| Household Composition | Percent Distribution of FSP-Eligible Households with Elderly | | |
|-----------------------------|--|--------------|-----------------|
| | All | Participants | Nonparticipants |
| One Person | 64.0 | 55.3 | 68.1 |
| One Widow | 36.8 | 28.6 | 40.8 |
| One Widower | 5.9 | 3.5 | 7.1 |
| One Nonwidowed | 21.3 | 23.3 | 20.3 |
| Two People | 21.6 | 20.4 | 22.2 |
| One Elderly, One Nonelderly | 11.5 | 13.2 | 10.7 |
| Two Elderly | 10.1 | 7.2 | 11.5 |
| Three People or More | 14.4 | 24.3 | 9.7 |
| Sample Size | 1,770 | 599 | 1,171 |

SOURCE: January 1992 SIPP Eligibility File

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

Contact with nonelderly may facilitate FSP participation by helping the elderly overcome physical, informational, and attitudinal barriers to participation.

Working Poor Households. Our analysis of working poor households and their relationship to participation status focuses our attention on five key types of working poor households defined by the presence of children and the number of nonelderly adults: (1) one adult only, (2) two adults only, (3) one adult with children, (4) two or more adults with children, and (5) adults with children and with elderly. Together, these types of households represent approximately 92 percent of all working poor households (Table III.7). The most common of these households is two or more adults with children, which accounts for approximately 50 percent of all working poor households. Single-parent families are the next most common, representing 18.5 percent of all working poor households.

As shown in Table III.7, each of the three working poor household types *with children* is less common among nonparticipants than among participants. In contrast, one-adult and two-adult working poor households with no children are more common among nonparticipants. These results are consistent with our earlier finding that the presence of children in any type of household is less common among nonparticipants. As we have suggested, households with children compared with those without may be more likely to participate because of a concern for the children's well-being that overcomes the adults' reluctance to receive public assistance. Households with children may also have increased access to and information about the FSP through other assistance programs for poor families with children.

6. Household Location

a. Metropolitan Status

Residing in a metropolitan location can either facilitate or discourage participation in the FSP. On the one hand, the distance to the nearest FSP office is likely to be shorter for metropolitan households than for households outside metropolitan areas. On the other hand, offices in densely populated

TABLE III.7

COMPOSITION OF FSP-ELIGIBLE HOUSEHOLDS WITH EARNERS

| Household Composition | Percent Distribution of FSP-Eligible Households with Earners | | |
|----------------------------------|--|--------------|-----------------|
| | All | Participants | Nonparticipants |
| One Adult Only | 9.7 | 3.3 | 14.2 |
| Two Adults Only | 8.8 | 5.6 | 11.1 |
| Single Adult with Children | 18.5 | 20.5 | 17.0 |
| Multiple Adults with Children | 50.7 | 62.5 | 42.5 |
| Adults with Children and Elderly | 4.7 | 6.5 | 3.5 |
| Other | 7.6 | 1.6 | 11.7 |
| Sample Size | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding. Adult is defined as 18-59 years of age.

metropolitan areas may be more crowded and, if so, involve greater hassles and longer waits relative to offices outside metropolitan areas.

Overall, we find relatively small differences and no clear pattern in the metropolitan/nonmetropolitan distribution of households by participation status (Table III.8). Among all eligibles, residing in a metropolitan area is slightly more common among participants (68.6 percent versus 66.9 percent). However, among the poor elderly and the working poor, it is more common for nonparticipants to reside in a metropolitan area.

b. Geographic Region

Geographic region may be related to FSP nonparticipation through regional variation in attitudes toward and operation of public assistance programs. However, the data do not show much variation in regional distribution by participation status (Table III.8). Compared with participants, nonparticipants tend to live in the Northeast and in the West, but the differences are small. Differences in the percentage of participants and nonparticipants living in the South and Midwest are also relatively small and do not show a clear pattern by participation status.

7. Characteristics of the Household Reference Person

a. Employment Status

Our analysis reveals that an employed reference person is considerably more common among nonparticipants than participants for all eligible households, the poor elderly, and the working poor (Table III.9). In each case, the higher share of nonparticipants with an employed reference person is balanced primarily by a lower share of nonparticipants with a reference person who is out of the labor force; there are only small differences by participation status in the share of households with an unemployed reference person.

TABLE III.8

METROPOLITAN STATUS AND REGION
OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|----------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Metropolitan Status | | | | | | | | | |
| Metropolitan | 67.7 | 68.6 | 66.9 | 65.1 | 60.5 | 67.4 | 66.1 | 65.0 | 66.8 |
| Nonmetropolitan | 32.3 | 31.4 | 33.1 | 34.9 | 39.5 | 32.6 | 33.9 | 35.0 | 33.2 |
| Region | | | | | | | | | |
| Northeast | 19.8 | 21.5 | 18.4 | 23.2 | 24.9 | 22.4 | 15.0 | 15.2 | 14.9 |
| South | 40.2 | 38.9 | 41.3 | 45.0 | 47.6 | 43.8 | 43.2 | 44.8 | 42.0 |
| Midwest | 22.2 | 23.0 | 21.5 | 20.1 | 17.9 | 21.1 | 21.2 | 21.8 | 20.8 |
| West | 17.8 | 16.7 | 18.9 | 11.7 | 9.7 | 12.7 | 20.6 | 18.3 | 22.3 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE III.9

EDUCATION AND EMPLOYMENT STATUS OF THE HOUSEHOLD REFERENCE PERSON
OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|----------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Employment Status | | | | | | | | | |
| Employed | 28.5 | 21.0 | 34.9 | 9.5 | 7.9 | 10.3 | 72.3 | 63.7 | 78.4 |
| Unemployed | 11.0 | 11.7 | 10.4 | 1.7 | 1.4 | 1.8 | 7.8 | 9.0 | 7.0 |
| Not in Labor Force | 60.5 | 67.3 | 54.7 | 88.8 | 90.7 | 87.9 | 19.9 | 27.4 | 14.7 |
| Completed Education | | | | | | | | | |
| Primary or Less | 25.9 | 25.1 | 26.6 | 46.7 | 53.7 | 43.3 | 16.9 | 17.4 | 16.4 |
| Some High School | 25.6 | 29.5 | 22.1 | 24.3 | 23.4 | 24.8 | 22.1 | 25.3 | 19.9 |
| High School | 32.5 | 32.6 | 32.3 | 20.3 | 16.4 | 22.2 | 40.0 | 41.2 | 39.3 |
| One to Three Years College | 12.2 | 10.5 | 13.6 | 6.3 | 4.8 | 7.0 | 15.0 | 12.4 | 16.9 |
| At Least 4 Years College | 3.9 | 2.2 | 5.3 | 2.4 | 1.7 | 2.7 | 5.9 | 3.7 | 7.5 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

There are large, but expected, differences in the distribution of employment status in the two subgroups. Fewer than 10 percent of poor elderly households have an employed reference person. In contrast, over 70 percent of working poor households have a reference person who is employed. (This subgroup is defined by the presence of any earnings, not necessarily those of the reference person.) In this way, a characteristic common to FSP-eligible nonparticipant households in general is exaggerated in working poor households.

b. Completed Education

The education of the household reference person may be related to participation in the FSP through positive links between education and income (or earnings). In addition, higher education is often thought to be related to greater welfare stigma. Our analysis of completed education by participation status is consistent with these hypotheses. Nonparticipants have completed more education than participants among all FSP-eligible households, and in both subgroups (Table III.9). The distribution of education level by participation status, however, differs in the two subgroups. Among the working poor, the share of nonparticipants exceeds the share of participants at education levels beyond high school (one to three years of college or at least four years of college). Among the poor elderly, however, the share of nonparticipants exceeds the share of participants at all levels beyond primary school.

Relative to all eligible nonparticipants, the working poor tend have more highly educated reference persons. In this way, a characteristic associated with nonparticipation is exaggerated in the working poor. In contrast, the poor elderly tend to have less educated reference persons. In fact, fewer than 30 percent of households with elderly have a reference person who has completed high school or more, compared to over 50 percent of all eligible nonparticipants and over 60 percent of the working poor (Table III.9).

c. Age

Our analysis of the age of the household reference person is consistent with our finding that households with elderly members are more common among nonparticipants. Among all eligibles, nonparticipant households are more likely than participants to have an elderly reference person (60 years or older), and they are more than twice as likely as participants to have a reference person in either the 70-to-79 and 80-years-or-older age groups (Table III.10).

Although it is possible that poor elderly do not have an elderly reference person, the reference person is elderly (age 60 or older) in approximately 95 percent of these households. Given this fact, we collapsed all the age groups under 60 years into one category for our analysis. The pattern for the poor elderly is similar to the pattern among all FSP-eligibles: nonparticipant households have older reference persons than participant households. In the poor elderly subgroup, nonparticipants are more likely than participants to have a reference person age 70 to 79 or age 80 or older.

In contrast to the poor elderly, the working poor tend to have relatively young reference persons. In this way, working poor households differ from FSP-eligible nonparticipants in general, who tend to be older. Approximately 90 percent of working poor households have a nonelderly reference person. Given this fact, we collapsed all of the over-60-years categories into one for our analysis of the age distribution for the working poor. In this group, the pattern in the age distribution by participation status is nonlinear. Relative to participants, nonparticipants are less likely to have a reference person under 40 years of age, more likely to have one age 40 to 49, less likely to have one age 50 to 59, and then more likely to have one at least 60 years of age.

d. Gender

We do not expect that gender of the reference person is directly linked to nonparticipation in the FSP. However, we may observe gender differences by participation status operating through other

TABLE III.10

AGE AND GENDER OF THE HOUSEHOLD REFERENCE PERSON
OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|--------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Age Group (Years) | | | | | | | | | |
| 15-29 | 19.7 | 25.2 | 14.9 | --- | --- | --- | 25.2 | 26.4 | 24.4 |
| 30-39 | 23.2 | 27.6 | 19.3 | --- | --- | --- | 32.5 | 35.2 | 30.5 |
| 40-49 | 13.8 | 14.6 | 13.1 | --- | --- | --- | 19.4 | 17.3 | 20.9 |
| 50-59 | 9.8 | 10.1 | 9.5 | --- | --- | --- | 11.1 | 12.2 | 10.3 |
| 60 or More | 33.6 | 22.6 | 43.2 | 94.9 | 91.4 | 96.6 | 11.8 | 8.9 | 13.9 |
| Less than 60 | 66.4 | 77.4 | 56.8 | 5.1 | 8.6 | 3.4 | 88.2 | 91.1 | 86.1 |
| 60-69 | 13.8 | 11.0 | 16.2 | 39.0 | 44.6 | 36.3 | --- | --- | --- |
| 70-79 | 12.3 | 7.8 | 16.2 | 34.7 | 31.5 | 36.2 | --- | --- | --- |
| 80 or More | 7.5 | 3.8 | 10.8 | 21.2 | 15.3 | 24.1 | --- | --- | --- |
| Gender | | | | | | | | | |
| Male | 38.4 | 29.2 | 46.4 | 33.7 | 29.9 | 35.5 | 50.2 | 43.2 | 55.0 |
| Female | 61.6 | 70.8 | 53.6 | 66.3 | 70.1 | 64.5 | 49.8 | 56.8 | 45.0 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

characteristics associated with gender and with participation, such as the receipt of AFDC, a transfer targeted to families headed by women.

A female reference person is more common among households that participate in the FSP than eligible households that do not participate (Table III.10). This is true for all households, the poor elderly, and the working poor. However, when we compare the gender composition of the two subgroups to all nonparticipants, differences emerge. Working poor households are more likely than all nonparticipants to have a male reference person (50 percent versus 46 percent), while poor elderly households are less likely than all nonparticipants to have a male reference person (34 percent versus 46 percent).

e. Race and Ethnicity

As with gender, we do not expect that race and ethnicity of the reference person are directly related to reasons for nonparticipation in the FSP. However, if race/ethnicity are related to differences in other characteristics-- such as income, earnings, education, and receipt of other government transfers--that are more closely related to participation, we may observe differences in the racial/ethnic distribution of households by participation status.

Eligible nonparticipant households are more likely than participant households to have a white reference person and less likely to have a black reference person (Table III.11). This is true for all eligibles, the working poor, and the poor elderly. The prevalence of Hispanic or other nonwhite reference persons, however, does not vary systematically. Among the elderly, the reference person in nonparticipant households is less frequently Hispanic or other nonwhite. The same is true for all eligibles. Among the working poor, however, there is essentially no difference in the frequency of Hispanic or other nonwhite reference persons by participation status. The racial composition of the poor elderly is quite similar to that of all eligible nonparticipants, while the working poor are somewhat less likely than all nonparticipants to have a white reference person.

TABLE III.11

RACE AND ETHNICITY, AND MARITAL STATUS OF THE HOUSEHOLD REFERENCE
PERSON OF PARTICIPANT AND NONPARTICIPANT HOUSEHOLDS

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|---------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Race and Ethnicity | | | | | | | | | |
| White Non-Hispanic | 56.2 | 47.0 | 64.3 | 61.6 | 52.2 | 66.2 | 54.0 | 48.9 | 57.5 |
| Black Non-Hispanic | 25.5 | 32.3 | 19.5 | 25.0 | 30.1 | 22.5 | 23.3 | 28.6 | 19.6 |
| Hispanic or Other | 18.3 | 20.8 | 16.2 | 13.4 | 17.7 | 11.3 | 22.7 | 22.5 | 22.9 |
| Marital Status | | | | | | | | | |
| Married | 26.7 | 24.3 | 28.8 | 20.2 | 19.7 | 20.4 | 44.1 | 43.9 | 44.3 |
| Divorced or Separated | 28.9 | 33.1 | 25.3 | 19.2 | 25.5 | 16.2 | 27.5 | 29.3 | 26.3 |
| Widowed | 21.8 | 15.2 | 27.5 | 52.6 | 46.4 | 55.6 | 7.0 | 6.2 | 7.6 |
| Never Married | 22.6 | 27.4 | 18.5 | 8.0 | 8.4 | 7.8 | 21.4 | 20.6 | 21.9 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

f. Marital Status

Marital status is another characteristic that we do not expect to be directly related to reasons for nonparticipation. Among all eligibles, nonparticipants are more likely than participants to have a currently married or widowed household reference person and less likely to have a previously married (divorced or separated) or never-married reference person (Table III.11). Within the elderly and working poor subgroups, nonparticipants are also more likely than participants to have a widowed reference person and less likely to have a divorced/separated reference person. However, unlike all FSP-eligibles, the elderly and working poor subgroups show very little difference in the frequency of either married or never-married reference persons by participation status.

Relative to all nonparticipants, the prevalence of widowed reference persons is exaggerated in the poor elderly, as it is for nonparticipants relative to participants in general. The relative prevalence of married reference persons is similarly exaggerated in the working poor. On the other hand, the poor elderly have relatively few married persons, and the working poor have relatively few widowed reference persons.

C. MULTIVARIATE ANALYSIS OF FSP PARTICIPATION

Our multivariate analysis of the relationship between household characteristics and participation in the FSP extends our comparisons of the characteristics of FSP participants and nonparticipants by examining the independent effect of characteristics on the likelihood of FSP participation. For example, we analyze the effect of food stamp benefits on FSP participation independent of the effects of household income and assets, receipt of government transfers, household size and composition, and the household reference person's characteristics. Our approach builds on Martini (1992), who used multivariate analysis and August 1985 SIPP data to examine FSP participation. We update his work by using January 1992 SIPP data, and we highlight working poor and poor elderly households.

Here, we summarize our approach to estimating the effect of household characteristics on FSP participation; the estimation methodology is described in more detail in Appendix B. Our analysis is based on the following participation equation that relates the probability of participation in the FSP to demographic and economic characteristics of households:

$$(1) P^* = X\beta + e$$

$$P = 1 \text{ if } P^* > 0$$

$$P = 0 \text{ if } P^* \leq 0$$

where P represents the household's reported FSP participation status (equal to one if it reports receipt of food stamps and equal to zero otherwise), and P^* represents its propensity to participate in the FSP. While we do not observe P^* , we know that if the household participates in the FSP, then P^* is greater than zero, and if it does not participate, then P^* is less than or equal to zero. X is a vector of observed household characteristics hypothesized to affect participation; it includes the full set of characteristics that we have discussed in our comparison of participant and nonparticipant households (Section B); a complete list of variables and their definitions appears in Appendix B, Table B.1. Finally, β is a vector of parameters representing the "net effect" of the characteristics on participation, and e is a random error term representing all unobserved factors that affect FSP participation. Because participation status (P) is a binary variable -- taking on only the values of 0 and 1-- we estimate equation (1) as a probit model.

We estimate the preceding FSP participation equation for three groups of households: (1) all FSP-eligibles, (2) the poor elderly, and (3) the working poor.⁶ This approach enables us to identify the

⁶We estimate the same equation for each group with the following three exceptions: (1) we do not include WIC receipt in the poor elderly estimation because this transfer is extremely uncommon in this group; (2) for the same reason, we do not include veteran's benefits receipt in the working poor estimation; (3) we adjust the breakpoints of the age group and FSP benefit level variables to reflect the different distributions of these variables in the different groups.

extent to which various characteristics influence participation in each group and whether the characteristics that affect participation differ by group. For all FSP-eligible households, we also consider the independent effect of households' poor elderly and working poor status on FSP participation; to do this, we estimate two alternative equations that omit the reference person's age and employment status variables respectively, as these two characteristics overlap with our definitions of poor elderly and working poor households.

The estimation results are presented in two ways. First, the estimated probit coefficients and standard errors appear in a series of tables in Appendix B. Second, the rest of this chapter presents a more illustrative discussion of predicted FSP participation rates and the statistical significance of the estimated effects of characteristics on participation. For example, we report predicted FSP participation rates for households with and without assets, holding all other characteristics fixed, and indicate whether assets have a statistically significant effect on the probability of FSP participation.

1. Poor Elderly and Working Poor Status

Table III.12 presents the results from estimating the effect of poor elderly and working poor status on participation in the FSP among all eligible households. Two findings are noteworthy. First, the presence of elderly in the household significantly lowers the likelihood of FSP participation. Holding other characteristics fixed, the predicted FSP participation rate of households with elderly is nearly 11 percent lower than the rate for households without elderly (43.3 percent versus 48.5 percent). This finding suggests that aside from other characteristics of households with elderly members that may lower their FSP participation--such as having few households members, having assets, and being eligible for low FSP benefits--there is something particular about the presence of elderly that independently deters participation.

Second, the presence of earned income in and of itself -- working poor status -- appears to deter participation. Holding other characteristics constant, the predicted participation is 7.5 percent lower

TABLE III.12

FSP PARTICIPATION: EFFECTS OF
POOR ELDERLY AND WORKING POOR STATUS

| Characteristic | Predicted FSP Participation Rates and Significance of Estimated Effects |
|----------------------------|--|
| | All Eligibles |
| Poor Elderly Status | |
| Elderly Present | 43.3** |
| No Elderly | 48.5--- |
| Working Poor Status | |
| Earnings Present | 44.3** |
| No Earnings | 47.9--- |
| Sample Size | 4,934 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.2 (elderly present) and B.3 (earnings present). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

in households with earnings than in households without earnings (44.3 percent compared with 47.9 percent). Because we include total income in the equation, this finding implies that a household with earned income is less likely to participate than a household *at the same income level* with no earned income. Thus, the effect of earnings on participation cannot be explained by the household's overall financial situation.

2. Household Income and Economic Resources

a. Household Income Level

Our comparisons reveal that nonparticipants tend to have higher income relative to the poverty line than participants. However, the multivariate results provide little evidence that the likelihood of FSP participation declines as household income increases and, hence, as need decreases. First, holding other characteristics fixed, eligible households reporting zero income are *less* likely than eligible households reporting positive income to participate in the FSP (Table III.13); this is true for all FSP-eligibles and for the poor elderly (all working poor households have positive income). This association of zero income with nonparticipation is also evident in our comparisons (Section B) and in Martini's (1992) multivariate analysis. As discussed above, Wemmerus and Porter (1996) found that many of the households that report zero income in SIPP are in fact likely to be financially viable households. These authors also suggest that zero-income households may have better long-run financial prospects than poor households in general. This is consistent with our finding that zero-income households are less likely to participate in the FSP than other low-income households.

Second, for income levels above zero, we find that the likelihood of participation in the FSP does not systematically decrease as household income increases. This is somewhat surprising, since we would expect a household's perceived need for assistance to decrease and its misperceptions about

TABLE III.13

**FSP PARTICIPATION: EFFECTS OF HOUSEHOLD INCOME
AND ECONOMIC RESOURCES**

| Characteristic | Predicted FSP Participation Rates and Significance of Estimated Effects | | |
|-------------------------------|---|--------------|--------------|
| | All Eligibles | Poor Elderly | Working Poor |
| Income as % of Poverty | | | |
| 0 % | 36.2*** | 16.9 | |
| 1-50 % | 47.9--- | 31.3--- | 39.7--- |
| 51-75 % | 49.2 | 30.7 | 42.0 |
| 76-100 % | 50.3 | 35.0 | 44.6 |
| 101% or More | 43.3* | 31.0 | 39.9 |
| Economic Resources | | | |
| Pension | | | |
| Present | 43.3 | 27.3** | 43.1 |
| Not present | 46.6--- | 33.3--- | 41.1--- |
| Assets | | | |
| Present | 42.4*** | 27.6*** | 42.0 |
| Not present | 47.5--- | 34.2--- | 40.9--- |
| Home Ownership | | | |
| Owned | 44.6** | 30.3* | 37.7** |
| Not owned | 47.6--- | 34.7--- | 43.5--- |
| Sample Size | 4,934 | 1,770 | 1,864 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.4 (All Eligibles), B.5 (Poor Elderly), and B.6 (Working Poor). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

eligibility to increase as income rises. One possible explanation is that our equation includes many other variables related to household income; and as we will discuss below, many of these variables are significantly related to participation in the FSP.

b. Pensions, Assets, and Home Ownership

Consistent with our comparisons of nonparticipants with participants, we find that pensions, assets, and home ownership make it less likely that a household will participate in the FSP (Table III.13).

Even holding total household income constant, we find that:

- *Pension income* is significantly related to lower participation among poor elderly households.
- *Asset income* is significantly related to lower participation among poor elderly and all FSP-eligible households.
- *Home ownership* is significantly related to lower participation among poor elderly, working poor, and all FSP-eligible households.

These results suggest that there is something particular about assets and home ownership that deters participation. And this appears to be true regardless of the fact that households with these resources are likely to have higher total income and to be eligible for lower food stamp benefits. Lack of knowledge of and/or confusion about the FSP-eligibility rules regarding assets is a possible explanation for these results.

In addition, these results suggest that there is something particular about having a pension, aside from its contribution to income, that deters participation among the poor elderly. Poor elderly with pension income might be more likely to perceive they are ineligible.

3. Receipt of Government Transfers

Participation in the FSP is strongly and positively related to the receipt of other government transfers for low income families including AFDC, SSI, other means-tested welfare, WIC, and housing

assistance (Table III.14). This finding is consistent with our comparisons. These results are highly significant for both working poor and poor elderly households as well as FSP-eligibles in general, with the exception that housing assistance does not appear to affect FSP participation among the poor elderly.⁷ Further, the differences in predicted FSP participation rates between recipients and nonrecipients of these transfers are quite dramatic.

These results demonstrate that participation in other government assistance programs substantially raises the probability of participation in the FSP--even after controlling for a rich set of household characteristics that may affect program participation. We propose two key explanations: (1) other programs facilitate FSP participation by providing their recipients with information about the FSP and/or assistance in applying to the FSP; (2) unobserved characteristics not accounted for in our FSP participation equation are positively associated with participation in the FSP and in other programs; one important example is the willingness to overcome the stigma associated with welfare receipt.

In contrast to the five government transfers mentioned above, neither Social Security nor veteran's benefits appears to have a significant effect on participation in the FSP by poor elderly households or FSP-eligible households in general. The absence of a positive effect on participation might be explained by the fact that these two transfers are not "welfare" programs for low-income households with programmatic links to the FSP. However, there is some evidence of a positive relationship between the receipt of Social Security and FSP participation in working poor households, 13 percent of which receive Social Security payments.⁸ It is possible that the Social Security recipients in working poor households are predominantly disabled individuals (rather than retirees), who concurrently participate in other programs in the welfare system, such as Medicaid.

⁷As noted, we do not include WIC in the poor elderly equation because these benefits are not relevant to this group.

⁸As noted, we do not include veteran's benefits in the working poor equation because this transfer is extremely uncommon in this group.

TABLE III.14

FSP PARTICIPATION: EFFECTS OF RECEIPT OF GOVERNMENT TRANSFERS

| Government Transfers | Predicted FSP Participation Rates and Significance of Estimated Effects | | |
|---------------------------|---|--------------|--------------|
| | All Eligibles | Poor Elderly | Working Poor |
| AFDC | | | |
| Received | 83.6*** | 73.6*** | 77.6*** |
| Not Received | 37.6--- | 30.9--- | 33.7--- |
| SSI | | | |
| Received | 63.4*** | 51.7*** | 55.3*** |
| Not Received | 42.0--- | 22.8--- | 39.5--- |
| Other Welfare | | | |
| Received | 77.8*** | 71.7*** | 70.0*** |
| Not Received | 44.6--- | 31.3--- | 39.8--- |
| WIC | | | |
| Received | 55.2** | NA | 53.5*** |
| Not Received | 46.0--- | NA | 40.2--- |
| Housing Assistance | | | |
| Received | 54.2*** | 32.5 | 52.4*** |
| Not Received | 44.7--- | 32.5--- | 39.9--- |
| Veteran's Benefits | | | |
| Received | 49.4 | 36.6 | NA |
| Not Received | 46.3--- | 32.1--- | NA |
| Social Security | | | |
| Received | 47.1 | 32.3 | 48.8** |
| Not received | 46.1--- | 33.2--- | 40.1--- |
| Sample Size | 4,934 | 1,770 | 1,864 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.4 (All Eligibles), B.5 (Poor Elderly), and B.6 (Working Poor). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

NA = not applicable.

4. Food Stamp Benefits

From a policy perspective, the relationship between the food stamp benefit level and FSP participation is particularly important, since the benefit level is directly controlled by policymakers. Our comparisons showed that FSP participants are eligible for higher monthly benefits than eligible nonparticipants. However, based on comparisons alone, we cannot determine whether higher benefits increase FSP participation. Multivariate estimation provides a tool for identifying whether the benefit level has an *independent* effect on participation net of other household characteristics. It is important to note, however, that estimating an independent benefit effect after controlling for household size and gross income, as we do in our equation, can be challenging since benefits are a function of these characteristics. The results of our multivariate analysis suggest that higher food stamp benefits do have an independent, positive effect on the likelihood of FSP participation. This is true for both subgroups of interest and for FSP-eligibles in general (Table III.15). One possible explanation is that, holding other characteristics fixed, a higher monthly benefit increases the likelihood that the household perceives the benefits to outweigh the costs associated with FSP participation.

We do find differences between poor elderly, working poor, and all FSP-eligible households in the particular pattern of the effect of FSP benefits on participation:

- ***Among poor elderly households***, FSP participation increases as benefits increase but only up to a certain point. In particular, predicted participation rate rises from 28 percent for benefits of \$10 or less, to approximately 36-37 percent for benefits of \$51 - \$100 and \$100 - \$150, and then drops below 30 percent for benefits over \$150.⁹

⁹A convex relationship between FSP benefits and participation among households with elderly, although rather puzzling, has been found in previous research (Martini 1992).

TABLE III.15

FSP PARTICIPATION: EFFECTS OF POTENTIAL FOOD STAMP BENEFITS

| Potential Benefit in Dollars | Predicted FSP Participation Rates and Significance of Estimated Effects | | |
|------------------------------|--|--------------|--------------|
| | All Eligibles | Poor Elderly | Working Poor |
| \$0-10 | 40.4--- | 27.8--- | |
| \$11-50 | 44.1 | 32.2 | |
| \$51-100 | 44.1 | 36.8*** | 33.0 |
| \$101-150 | 46.3** | 36.3** | 39.1 |
| \$151-200 | 47.4** | | 39.5 |
| \$201-300 | 50.3*** | | 46.9*** |
| More than \$300 | 56.7*** | | 61.0*** |
| More than \$150 | | 29.6 | |
| \$50 or less | | | 33.3--- |
| Sample Size | 4,934 | 1,770 | 1,864 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.4 (All Eligibles), B.5 (Poor Elderly), and B.6 (Working Poor). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

- *Among working poor households*, FSP participation continuously increases as benefits increase. Holding all else fixed, the predicted participation rate when benefits are more than \$300 per month is over 60 percent; this rate is nearly twice as high as the rate when benefits are \$100 or less per month.
- *Among all FSP-eligible households*, the predicted participation rate steadily increases as the benefit increases. Although this pattern is the same as that in working poor households, the magnitude of the increase is less dramatic.

5. Household Size and Composition

a. Household Size

Consistent with our comparisons, our multivariate analysis reveals that larger households are more likely than smaller households to participate in the FSP (Table III.16). This implies that the number of household members in and of itself positively influences the household participation decision independent of all other characteristics in our equation that may be correlated with household size and FSP participation, such as benefit levels and the presence of children. While this relationship is evident in the poor elderly and working poor subgroups as well as in FSP-eligibles in general, the pattern and magnitude of the effect of household size varies across groups:

- *Among poor elderly households*, the magnitude of the effect is the largest. Predicted participation, approximately 30 percent for household sizes of 1 to 3, jumps to around 62 percent for a household size of 4 and 5 or more.
- *Among working poor households*, predicted participation is also approximately 30 percent for a household size of 1, but it does not increase nearly as much as it does for the poor elderly; the predicted rate plateaus at around 44 percent for a household size of 3 or more.
- *Among FSP-eligibles in general*, the magnitude of the effect is the smallest. Predicted participation increases from about 43 percent for a household size of 1 to about 50 percent for household sizes of 4 or more.

The large increase in FSP participation in poor elderly households with four or more members might be explained by the fact that elderly households of this size also include *nonelderly* members--most likely an adult child of the elderly person(s) and his/her family--who are unaffected by the problems

TABLE III.16

FSP PARTICIPATION: EFFECTS OF HOUSEHOLD SIZE AND COMPOSITION

| Characteristic | Predicted FSP Participation Rates and Significance of Estimated Effects | | |
|----------------------------|---|--------------|--------------|
| | All Eligibles | Poor Elderly | Working Poor |
| Household Size | | | |
| 1 Person | 42.8--- | 29.5--- | 29.8--- |
| 2 People | 46.1 | 31.0 | 37.7* |
| 3 People | 48.5* | 31.0 | 43.4** |
| 4 People | 51.9** | 61.3*** | 44.7** |
| 5 People or more | 50.2* | 62.5*** | 44.1** |
| Children | | | |
| Present | 46.9 | 26.1 | 40.6 |
| Not present | 46.1--- | 33.2--- | 42.9--- |
| Nonelderly Disabled | | | |
| Present | 43.3 | 31.7 | 33.3 |
| Not present | 46.8--- | 32.5--- | 42.0--- |
| Sample Size | 4,934 | 1,770 | 1,864 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.4 (All Eligibles), B.5 (Poor Elderly), and B.6 (Working Poor). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

in participating in the FSP that are associated with being elderly and who are likely to have contact with the welfare system.

b. Household Composition

Children. Although our analysis comparing the characteristics of FSP participants to FSP-eligible nonparticipants reveals that children are much more common among FSP participants, our multivariate analysis indicates that the presence of children does not have a significant, independent effect on participation (Table III.16). This finding suggests that the presence of children is associated with other characteristics that positively influence FSP participation. Possible examples include household size and receipt of AFDC.

Nonelderly Disabled. While households with nonelderly disabled members are more prevalent among FSP participants than among FSP-eligible nonparticipants, the presence of nonelderly disabled is not significantly related to participation; if anything, participation is *lower* when nonelderly disabled are present (Table III.16). This difference between the results of our comparisons and the multivariate analysis suggests that households with nonelderly disabled members tend to have other characteristics that positively influence FSP participation. For example, they are likely to receive SSI, a transfer targeted to the elderly and to the nonelderly disabled, and SSI receipt increases the likelihood of FSP participation.

6. Household Location

a. Metropolitan Status

Our comparisons showed little difference between participants and nonparticipants in the percent residing in Metropolitan areas. However, our multivariate estimates suggest that holding other characteristics fixed, households in metropolitan areas participate in the FSP at a lower rate than those in nonmetropolitan areas (Table III.17). This difference is statistically significant among all FSP-

TABLE III.17

FSP PARTICIPATION: EFFECTS OF METROPOLITAN STATUS AND REGION

| Characteristic | Predicted FSP Participation Rates and Significance of Estimated Effects | | |
|----------------------------|---|--------------|--------------|
| | All Eligibles | Poor Elderly | Working Poor |
| Metropolitan Status | | | |
| Metropolitan | 45.4* | 29.4*** | 40.2 |
| Nonmetropolitan | 48.4--- | 38.1--- | 43.2--- |
| Region | | | |
| South | 48.5--- | 32.5--- | 43.9--- |
| Northeast | 47.4 | 35.9 | 40.8 |
| Midwest | 46.1 | 32.2 | 39.6 |
| West | 40.7*** | 25.8* | 37.1** |
| Sample Size | 4,934 | 1,770 | 1,864 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.4 (All Eligibles), B.5 (Poor Elderly), and B.6 (Working Poor). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

eligibles and the poor elderly but not among the working poor, and it is largest among the poor elderly. This finding implies that within the FSP-eligible population in general, and among the poor elderly in particular, something about living in a metropolitan area deters participation in the FSP. There is no ready explanation for this result. One possibility is that there are certain informational problems or participation costs specific to metropolitan areas that particularly affect the elderly; another is that, for some unobserved reason, metropolitan residents are less willing than nonmetropolitan residents to try to overcome these problems or incur these costs.

b. Geographic Region

While our comparisons did not show strong differences in the regional distribution of participants and nonparticipants, the multivariate estimates reveal some regional effects on the likelihood of participation. In particular, holding other characteristics fixed, residing in the West as opposed to the South significantly lowers the likelihood of FSP participation in each group (Table III.17). Predicted participation rates are lowest in the West for all groups. Among all eligibles and the working poor, predicted participation is highest in the South, while among the poor elderly it is highest in the Northeast.

7. Characteristics of the Household Reference Person

a. Employment Status

Our comparisons revealed that nonparticipants are more likely than participants to have an employed reference person. When other characteristics are held constant, households with a reference person who is employed are, in fact, less likely than those with a reference person who is not in the labor force to participate in the FSP. This effect is statistically significant among all FSP-eligibles and in both the working poor and poor elderly subgroups (Table III.18). Because we include household income in the participation equation, these multivariate results imply that the presence of an employed

TABLE III.18

**FSP PARTICIPATION: EFFECTS OF EMPLOYMENT STATUS
AND EDUCATION OF HOUSEHOLD REFERENCE PERSON**

| Characteristic | Predicted FSP Participation Rates and Significance of Estimated Effects | | |
|-----------------------------|--|--------------|--------------|
| | All Eligibles | Poor Elderly | Working Poor |
| Employment Status | | | |
| Employed | 41.0*** | 25.3** | 39.1*** |
| Unemployed | 48.4 | 29.7 | 45.3 |
| Not in Labor Force | 49.2--- | 33.3--- | 47.4--- |
| Completed Education | | | |
| Primary or Less | 48.7--- | 34.1--- | 42.4--- |
| Some High School | 47.7 | 33.4 | 43.1 |
| High School | 45.4* | 28.0** | 41.5 |
| 1 to 3 Years of College | 43.3** | 29.8 | 38.6 |
| At Least 4 Years of College | 40.7*** | 31.6 | 34.7 |
| Sample Size | 4,934 | 1,770 | 1,864 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.4 (All Eligibles), B.5 (Poor Elderly), and B.6 (Working Poor). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

reference person, aside from its relation to total income, deters participation in the FSP. The result for all eligibles is consistent with our earlier finding that eligible households with earnings--from any household member--are less likely to participate in the FSP. The result for working poor households indicates that even within the subset of households with earnings, participation is affected by whether the reference person (owner/renter) in particular is employed. There are three possible explanations for the negative effect of employment of the reference person on FSP participation: (1) misperceptions about eligibility rules regarding employment, (2) better expectations about future income when the reference person is employed, and (3) difficulties visiting the FSP office because of work schedules.

b. Completed Education

Consistent with our comparisons, our multivariate analysis indicates that the completed education level of the household reference person is negatively related to participation in the FSP (Table III.18). However, there are some differences in the strength and pattern of the education effect across groups.

- *Among all FSP-eligible households*, the predicted FSP participation rate steadily declines as the level of completed education increases, and there are statistically significant negative effects of education on participation.
- *Among poor elderly households*, the predicted FSP participation rate declines as education increases up to high school completion, but then increases slightly as education increases above this level.
- *Among working poor households*, predicted participation rates decline with education levels, except between the two lowest levels. However, we find no evidence of a statistically significant relationship between completed education and participation for the working poor.

c. Age

The results of our multivariate analysis for the effect of the reference person's age on FSP participation are broadly consistent with the results of our comparisons. In particular, participation generally declines with age, but there are some nonlinearities in the relationship (Table III.19). For

TABLE III.19

**FSP PARTICIPATION: EFFECTS OF AGE AND GENDER OF
HOUSEHOLD REFERENCE PERSON**

| Characteristic | Predicted FSP Participation Rates and Significance of Estimated Effects | | |
|--------------------|--|--------------|--------------|
| | All Eligibles | Poor Elderly | Working Poor |
| Age (Years) | | | |
| Younger Than 30 | 50.8--- | | 44.8--- |
| 30-39 | 49.5 | | 43.8 |
| 40-49 | 44.8** | | 34.4*** |
| 50-59 | 52.0 | | 44.5 |
| 60 or Older | 41.8*** | | 35.1* |
| Younger Than 60 | | 38.5 | |
| 60-69 | | 35.7--- | |
| 70-79 | | 33.3 | |
| 80 or Older | | 24.1*** | |
| Gender | | | |
| Male | 44.7* | 30.7 | 39.9 |
| Female | 47.7--- | 33.4--- | 42.6--- |
| Sample Size | 4,934 | 1,770 | 1,864 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.4 (All Eligibles), B.5 (Poor Elderly), and B.6 (Working Poor). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

example, the predicted FSP participation rate in working poor households, holding other characteristics fixed, decreases as age increases from under 30 years to 30-39 years to 40-49 years; however, predicted participation then increases as age increases from 40-49 years to 50-59 years and then decreases again as age increases to 60 years and older.

In contrast to the other groups, predicted FSP participation rates among the poor elderly continuously decline as the reference person's age increases. The decline in predicted participation rates among the poor elderly is largest between 70-79 years, and at 80 years and older.¹⁰

d. Gender

In our comparisons of participant and nonparticipant households, we found that participants were less likely than nonparticipants to have a male household reference person. The results of our multivariate analysis do reveal that a male reference person has a negative effect on the probability of participation, but the effect is small and is not statistically significant in either the poor elderly or working poor subgroups (Table III.19). This suggests that gender of the household reference person does not have a strong effect on participation in the FSP, after controlling for other characteristics that may be associated with gender and the receipt of food stamps.

e. Race and Ethnicity

The reference person's race and ethnicity are not significantly related to participation in the FSP in poor elderly, working poor, or all FSP-eligible households (Table III.20). While our comparisons revealed differences in the racial/ethnic composition of participants versus nonparticipants, race/ethnicity does not appear to independently affect the likelihood of participation. This suggests that

¹⁰Martini (1992) also examined households with elderly as a subgroup. His results differ from ours in that he found that households with a reference person age 60-69 years participate at a higher rate than those with a nonelderly reference person.

TABLE III.20

FSP PARTICIPATION: EFFECTS OF RACE AND ETHNICITY,
AND MARITAL STATUS OF HOUSEHOLD REFERENCE PERSON

| Characteristic | Predicted FSP Participation Rates and Significance of Estimated Effects | | |
|---------------------------|---|--------------|--------------|
| | All Eligibles | Poor Elderly | Working Poor |
| Race and Ethnicity | | | |
| White Nonhispanic | 46.0--- | 32.6--- | 41.4--- |
| Black Nonhispanic | 47.4 | 30.8 | 43.5 |
| Hispanic or Other | 46.7 | 34.8 | 38.6 |
| Marital Status | | | |
| Married | 46.2 | 31.5 | 41.2 |
| Divorced/Separated | 49.3** | 36.6** | 44.0 |
| Widowed | 44.5 | 32.0 | 37.0 |
| Never Married | 45.1--- | 28.0--- | 38.8--- |
| Sample Size | 4,934 | 1,770 | 1,864 |

SOURCE: January 1992 SIPP Food Stamp Eligibility File.

NOTE: The predicted participation rates are computed from the probit coefficients presented in Appendix B, Tables B.4 (All Eligibles), B.5 (Poor Elderly), and B.6 (Working Poor). Household weights are used.

---Denotes omitted value of the variable in the estimated equation.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

the reference person's race/ethnicity is likely to be correlated with other characteristics that influence participation in the FSP.

f. Marital Status

Our comparisons revealed some marital status differences between participants and nonparticipants. However, the reference person's marital status does not appear to have a strong independent effect on participation in the FSP once we control for other characteristics (Table III.20). There is some evidence that poor elderly and all FSP-eligible households with a divorced/separated reference person are more likely than those with a never-married reference person to participate. However, this is the only significant difference.

D. SUMMARY

The key findings from our analysis of the characteristics associated with participation in the FSP are summarized below.

1. Characteristics of Participants and Nonparticipants

For all FSP eligible households, nonparticipants are more likely than participants to be:

- Working poor
- Poor elderly

For all FSP-eligible households and for the working poor and poor elderly subgroups, we find that relative to participants, eligible *nonparticipants* are more likely to have the following characteristics:

- Higher income relative to the poverty line
- Pensions, assets, and home ownership
- No receipt of AFDC, SSI, other welfare, WIC, or housing assistance
- Receipt of Social Security and veteran's benefits
- Low FSP benefits
- Small households (1 or 2 persons)
- No children

- No nonelderly disabled

Eligible nonparticipants are also more likely to have reference persons that are:

- Employed
- More educated
- Older
- Male
- White
- Married or widowed

2. Independent Effects of Characteristics on Participation

a. Working Poor and Poor Elderly Status

Even after controlling for a rich set of household economic and demographic characteristics, we find that the presence of elderly and the presence of earnings each lower the likelihood of participation in the FSP among eligible households. While we find that other characteristics do affect participation, they explain only *some* of the difference between the participation rate of eligible households with elderly (earnings) and the higher participation rate of eligible households without elderly (earnings). In other words, some of the reasons for low participation by these groups must be tied to factors that we cannot directly observe in the data, such as misperceived ineligibility, less perceived need for food stamps, and higher costs of applying for food stamps.

b. Other Factors Affecting FSP Participation

The following household characteristics have statistically significant, independent effects on participation among FSP-eligible households, even after controlling for many other factors that affect participation:

- ***Assets and home ownership lower participation.*** There may be misperceptions about eligibility rules regarding asset income and owning a home. The elderly, in particular, may not be aware that they face different asset eligibility rules.

- ***Receipt of other public assistance raises participation.*** Other programs may provide information about or assistance with obtaining food stamps; aside from observed characteristics, the types of households likely to apply to other programs--those with lower costs to participation or lower welfare stigma--are likely to apply to the FSP.
- ***FSP benefit amount raises participation.*** Higher monthly benefits may increase the likelihood that the household perceives that the overall gain from participating outweighs the costs. This result is important given that the benefit level is the one variable directly controlled by policymakers.
- ***Household size raises participation.*** Households with more members may have more opportunities to learn about the FSP.
- ***Household location in the West or in metropolitan areas lowers participation.*** There may be regional and metropolitan/nonmetropolitan differences in program administration and in attitudes that affect the decision to participate.

And the following characteristics of the household reference person also have statistically significant, independent effects on participation among FSP-eligible households:

- ***Employment.*** Like the presence of any earnings, the employment of the reference person *lowers* participation.
- ***Elderly.*** Like the presence of any elderly, an elderly reference person *lowers* participation.
- ***Education.*** A more highly educated reference person *lowers* participation.
- ***Gender.*** A male reference person *lowers* participation.
- ***Marital status.*** A divorced/separated reference person relative to a never-married one *raises* participation.

While many studies have found that household income has a statistically significant negative effect on participation in the FSP, we do not find that it has a significant effect in either subgroup, and we find that it has a relatively weak effect among all FSP-eligibles. One possible explanation is that our analysis controls for a more comprehensive set of other characteristics that are correlated with FSP participation and with income -- that is, we have controlled for the major determinants of income.

Another explanation is that our eligibility determination is more precise than in other studies, where higher income may have been a proxy for ineligibility.

3. Differences in the Characteristics Affecting Participation Across Groups

Our analysis reveals a few differences in the relationship between characteristics and FSP participation in working poor and poor elderly households as compared with other FSP-eligible households.

a. The Working Poor Versus All FSP-Eligibles

- Assets, metropolitan status, and the reference person's education and marital status do *not* have significant effects on participation for the working poor but do for all FSP-eligibles.
- Social Security receipt increases participation for the working poor subgroup but does not have a significant effect for FSP-eligible households in general.
- Household size is a significant factor for working poor and eligibles in general, but the magnitude of the effect is larger for the working poor.

b. The Poor Elderly Versus All FSP-Eligibles

- Receipt of housing assistance does not have a significant effect on participation for the poor elderly but does for FSP-eligibles in general.
- A pension decreases participation for the poor elderly but does not have a significant effect for FSP-eligibles in general; this is not surprising since pension income is most relevant to elderly households.
- Household size is a significant factor that increases participation for the poor elderly and eligibles in general. The magnitude of the effect is substantially larger for poor elderly households, where large households generally imply the presence of nonelderly members.
- Among all eligibles, participation increases continuously with the benefit level and decreases continuously with the education level of the reference person; among the poor elderly, in contrast, participation has a nonlinear relation with the benefit level and education of the reference person.

IV. FOOD SECURITY AND FSP PARTICIPATION

Food security describes the availability of nutritionally adequate and safe food acquired in socially acceptable ways. *Food insecurity* is the absence of food security. It is a broad concept that includes not only hunger, but also less severe conditions such as being able to afford only a few kinds of low-cost foods, being anxious about not having enough food, needing to borrow money for food, or needing to visit a soup kitchen. The Food Stamp Program (FSP) is designed to alleviate food insecurity.

This chapter examines the food security of poor elderly and working poor households and the relationship between food security and participation in the FSP. It has four main goals:

1. To describe the food security of working poor and poor elderly households
2. To compare the food security of working poor and poor elderly households with the food security of other households that are eligible for food stamps
3. To compare the food security of households that participate in the FSP with that of FSP-eligible households that do not participate in the program
4. To compare expenditures on food and the use of other assistance programs by working poor and poor elderly households with those of other FSP-eligible households; and to compare expenditures on food and the use of other assistance programs by FSP participants with those of FSP-eligible households that do not participate in the program

The analysis in this chapter is based on two sources of data on food security: (1) the SIPP Extended Well-Being Module administered to Wave 6 of the 1991 SIPP Panel and Wave 3 of the 1992 SIPP Panel, and (2) the April 1995 Food Security Supplement of the CPS. The SIPP Well-Being Module contains several questions about household food security and includes enough information to allow a reasonable approximation of the household's likely eligibility for the FSP. The CPS Food Security Supplement is the richest available source of information on food security, and it includes information

on food expenditure and the use of other food assistance programs. However, it allows only a rough approximation of a household's eligibility for food stamps.

This chapter is organized as follows. Section A discusses potential relationships between food security and participation in the FSP. Section B discusses the concept of food security and describes how it is measured. Section C covers our analysis of the SIPP Well-Being Module, and Section D covers our analysis of the CPS Food Security Supplement. The chapter ends with a summary of our main findings.

A. RELATIONSHIPS BETWEEN FOOD SECURITY AND FSP PARTICIPATION

Food security may be related to FSP participation in two ways. First, some variation in food security may be a *consequence* of participation in the program. By providing a household with additional access to food, food stamps may increase food security. Second, some variation in food security may *affect* participation in the program. Households that are less food secure and hence, have the most need for food assistance, may be more likely to participate in the program.

Because these two relationships run in opposite directions, we cannot predict whether FSP participants will be on average more or less food secure than FSP-eligible nonparticipants. A household that participates in the FSP is likely to be more food secure than an otherwise identical household that does not participate in the program. However, because households with less food security are more likely to choose to participate in the program, participants on average may be less food secure than eligible nonparticipants.

One possible explanation for the low rates of participation in the FSP by the working poor and poor elderly is that these groups may be more food secure than other FSP-eligible groups, therefore having less need for food stamps and being less willing to incur the costs of participation. If greater food security does explain the low participation rates of these groups, working poor and poor elderly FSP

participants would be *more* food secure than other participants, and working poor and poor elderly nonparticipants would be *more* food secure than other FSP-eligible nonparticipants.

An alternative explanation for the low participation rates of the working poor and poor elderly is that they are equally or less food secure than other groups (and hence have a similar or greater need for food stamps), but they face higher costs of FSP participation. If the willingness to incur these costs increases with the need for food stamps, households that incur higher costs would be less food secure on average than those that incur lower costs. If higher costs of participation do explain low participation by these groups, working poor and poor elderly FSP participants would be *less* food secure than other participants, and working poor and poor elderly nonparticipants would be *less* food secure than other FSP-eligible nonparticipants.

B. MEASURING FOOD SECURITY¹

As efforts to measure hunger in the U.S. expanded in the 1980s, it became apparent that there was no common understanding of the meaning of “hunger” and how it should be measured. Traditionally, it was measured in terms of the physiological effects of nutritional deprivation. However, as physiological protein and calorie malnutrition are not national public health problems in the U.S., the need for a broader, more policy-relevant concept of hunger became evident.

In the 1980s and 1990s, several independent efforts were made to conceptualize and measure food insecurity (for example, Wehler et al. 1992, Olson et al. 1995, and Basiotis 1992). The basic approach of each of these efforts was to develop an understanding of what happens when a household is threatened by hunger. How do household members *behave* when faced with this threat? What *conditions* characterize a household faced with a threat of hunger? Behaviors of members of households threatened by hunger are referred to as *coping behaviors* and may include borrowing

¹This section draws from Bickel, Andrews, and Klein (1996).

money, serving a few low-cost foods, or visiting a soup kitchen. Examples of conditions indicating a household is faced with a threat of hunger include a child having to skip meals or going to bed hungry. The research suggests that observable behaviors and conditions can be used as indicators of food insecurity.

Households have been found to respond to the threat of hunger in two stages (Wehler et al. 1992, Olson et al. 1995, and Basiotis 1992). In the first stage, the *quality* and *diversity* of food is sacrificed. The household becomes more frugal, buying calorie-rich foods and relying on a few low-cost foods, such as rice and macaroni. These actions typically reduce the nutritional quality of the food. In the second stage, the *quantity* of food consumed is reduced. Typically, the stocks of food the family has at home are first depleted, then the adults in the household eat less per meal or skip meals, and finally the children in the household eat less per meal or skip meals. Hence, cutting down on the variety of foods is an indicator of mild food insecurity; and children going without food is an indicator of much more severe food insecurity.

There are four aspects to food insecurity:²

1. ***Quantitative***. Does the household have enough food? Indicators of food scarcity include running out of food and having no money for more, and adults skipping meals and eating less than they think they should. Children skipping meals and going hungry are indicators of severe food scarcity.
2. ***Qualitative***. Does the household eat the kinds of foods it wants? Not eating the kinds of foods the household wants is a sign of food insecurity.
3. ***Social acceptability of the sources of food***. Purchasing food, growing food, hunting for food, and using government food assistance programs are viewed as socially acceptable ways to obtain food. Borrowing food or money for food, sending children to friends or relatives for meals, buying food on credit, using a food pantry or soup kitchen, and gathering discarded food are viewed as socially unacceptable ways to obtain food. These actions are an indication of food insecurity.

²Researchers, under contract to FCS, are currently developing an index of food security that incorporates each of these aspects of food insecurity. This index is not yet available.

4. **Concerns about a lack of food and the threat of hunger.** Concerns about running out of food or not being able to serve balanced meals are indicators of food insecurity.

The term *food sufficiency* combines the quantitative and qualitative aspects of food security. A household is food sufficient if its members have enough of the types and kinds of foods they want. A typical survey question used to measure food sufficiency is:

Which of these statements best describes the food eaten in your household?

- Enough of the kinds of food we want
- Enough food, but not always of the kinds we want to eat
- Sometimes not enough to eat
- Often not enough to eat

Variants of this question have been asked in at least 12 national surveys spanning nearly 20 years (Bickel, Andrews, and Klein 1996). We refer to this question as the basic food sufficiency question.

C. ANALYSIS OF THE SIPP EXTENDED WELL-BEING MODULE

This section documents our analysis of the SIPP Extended Well-Being Module. We describe the survey and then the food sufficiency of households that are likely to be eligible for food stamps.

1. Description of the SIPP Extended Well-Being Module

The SIPP Extended Well-Being Module was designed to provide information on a household's quality of life. It is relevant to this study because it includes questions about food sufficiency and food scarcity. These questions include the basic food sufficiency question cited above (with reference to the past four months), a question about the number of days the household did not have enough food or money to buy food in the past month, a question about the amount by which the household fell short

of its food budget in the past month,³ and questions about why a household did not have enough food. The module was administered simultaneously between October 1992 and January 1993 to Wave 6 of the 1991 SIPP panel and Wave 3 of the 1992 SIPP panel.

Our analysis is based on data pooled from the two waves of the Well-Being Module and the corresponding core SIPP files. The core SIPP files provide data on income, sources of income, and ages of the household members. As the Well-Being Module asks questions of only one respondent in each household, we use household-level data for this analysis.

The core SIPP files have information on monthly income but not on the assets or expenses necessary to determine eligibility for food stamps.⁴ Hence, we make only an approximate determination of FSP eligibility using an income screen of 130 percent of poverty. Appendix A shows that, relative to other income screens, an income screen of 130 percent of poverty minimizes the difference between the total number of households determined eligible on the basis of an income screen and those determined eligible with the full set of asset and expense data.⁵ Given that our eligibility determination is only an approximation, we refer to households that pass this screen as “low-income” rather than FSP-eligible. Our analysis is based on 5,604 households that meet this definition of low-income and that responded to the question on food sufficiency.

The core SIPP questionnaire collects information for the four months prior to the interview. While some of the questions in the Well-Being Module ask about all four months before the interview, others

³As the number of households in our subgroups that responded to this question is small, we do not present statistics on the budget shortfall.

⁴Modules administered in Waves 4 and 11 of the SIPP do contain information on assets and expenses. For the analysis in Chapter III, FSP eligibility is approximated using the asset and expense information from these waves. As these modules were not administered at the same time as the Well-Being Module, we were not able to use the same approach in the analysis described in this chapter.

⁵Eligibility determination using an income screen of 130 percent was compared with eligibility determination using income screens of 100, 150, and 185 percent of poverty.

ask only about the month before the interview. For consistency with our analysis in Chapter III, we define poor elderly, working poor, FSP participation, and low-income status according to the characteristics of the household in the month immediately prior to the interview month.⁶

Weighted counts of low-income households in each subgroup are shown in Table IV.1. As expected, the number of households with income not exceeding 130 percent of poverty is higher than the number of households determined eligible for the FSP using income, asset, and expense information available from the SIPP for January 1992 (see Table III.1).⁷

2. Food Sufficiency

The distribution of the responses to the basic food sufficiency question in the SIPP Well-Being Module is shown in Table IV.2. A majority (61 percent) of all low-income households reported that they had enough food of the kinds they want (we refer to this as “right” kinds) in the past four months. An additional 32 percent had enough food, but not of the right kinds. A sizeable proportion of all low-income households (7.5 percent) reported that they often or sometimes did not have enough food.

Poor elderly households reported much greater food sufficiency than did low-income households in general. First, the proportion of all poor elderly households that reported having enough food of the right kinds (73 percent) was nearly 13 percentage points higher than the proportion of all low-income households that reported having enough food of the right kinds. Second, only 3 percent of poor elderly households reported often or sometimes not having enough food, compared with 7.5 percent of all low-income households. Finally, poor elderly households that participated in the FSP were more likely than

⁶An alternative would be to define households according to their characteristics over all four previous months. As none of the main findings of this analysis are sensitive to which of the two definitions are used, we present findings based only on the one-month definition.

⁷The count of participants in the SIPP Well-Being Module is lower than the count of participants found in the January 1992 SIPP cross-section primarily because we have excluded households that did not respond to the food sufficiency question. Also, a small proportion of FSP participants have gross income of more than 130 percent of poverty and were therefore excluded by our income screen.

TABLE IV.1

NUMBER OF LOW-INCOME HOUSEHOLDS BY FSP
PARTICIPATION STATUS AND SUBGROUP
(SIPP Well-Being Module)

| | Number of Households in Thousands | | |
|----------------|-----------------------------------|--------------|-----------------|
| | All Low-Income | Participants | Nonparticipants |
| All Low-Income | 17,272 | 5,886 | 11,386 |
| Elderly | 5,791 | 1,288 | 4,504 |
| Working Poor | 6,491 | 1,797 | 4,694 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Module.

NOTES: Counts are based on weighted data. Low-income households are those with income in the month prior to the interview month not exceeding 130 percent of the poverty threshold.

TABLE IV.2

DISTRIBUTION OF FOOD SUFFICIENCY
(SIPP Well-Being Module)

| Response to Food Sufficiency Question | Percent Distribution of Low-Income Households | | | | | | | | |
|---------------------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Enough Food, Right Kinds | 60.5 | 48.3 | 66.8 | 73.0 | 58.1 | 77.3 | 56.4 | 44.8 | 60.9 |
| Enough Food, Wrong Kinds | 32.1 | 40.7 | 27.7 | 23.9 | 36.1 | 20.5 | 35.6 | 44.3 | 32.3 |
| Sometimes Not Enough Food | 6.1 | 9.1 | 4.5 | 2.3 | 4.8 | 1.6 | 6.9 | 8.6 | 6.2 |
| Often Not Enough Food | 1.4 | 2.0 | 1.0 | 0.7 | 1.0 | 0.6 | 1.1 | 2.3 | 0.7 |
| Sample Size | 5,604 | 1,898 | 3,706 | 1,939 | 435 | 1,504 | 2,135 | 606 | 1,529 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Module.

NOTES: Percentages are based on weighted data. Low-income households are those with income in the month prior to the interview month not exceeding 130 percent of the poverty threshold.

all FSP participants to report having enough food, and poor elderly nonparticipants were more likely than all low-income nonparticipants to report having enough food.

In contrast to the poor elderly, working poor households were slightly *less* likely than all low-income households to report having enough food of the right kinds and more likely to report not having enough food. However, these differences were fairly small. About 56 percent of working poor households reported having enough food of the right kinds, compared with about 61 percent of all low-income households. About 8 percent of working poor households reported not having enough to eat, sometimes or often, compared with 7.5 percent of all low-income households. Working poor participants and nonparticipants were less likely than all low-income participants and nonparticipants, respectively, to report having enough food of the right kinds.

Households that participated in the FSP were less likely than those that did not participate to report having enough food of the right kinds. This was true for all low-income households, and for the poor elderly and working poor households. The differences are quite striking. Only about 48 percent of all low-income participant households reported having enough food of the right kinds, compared with 67 percent of nonparticipant households. Similar differences in the food sufficiency of participants and nonparticipants were also found in the Low-Income Supplement to the 1977-78 Nationwide Food Consumption Survey (Human Nutrition Information Service 1982) and in a survey of low-income elderly households (Burt 1993). These findings suggest that the negative impact of food sufficiency on the decision to participate in the FSP outweighs the positive impact of the FSP on the food sufficiency of the household.

We also examined the extent to which differences in the income of the poor elderly and working poor relative to other FSP-eligible households explain the differences in the food sufficiency of these groups and other low-income households. Table IV.3 presents the distribution of responses to the basic food sufficiency question for households with income in three categories: (1) less than 75 percent of

TABLE IV.3

DISTRIBUTION OF FOOD SUFFICIENCY BY HOUSEHOLD INCOME
(SIPP Well-Being Module)

| Income Level | Percent Distribution of Low-Income Households | | | | | | | | |
|---|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Less Than 75% of Poverty | | | | | | | | | |
| Enough Food, Right Kinds | 56.3 | 47.0 | 65.2 | 67.5 | 50.1 | 74.2 | 55.7 | 46.9 | 61.3 |
| Enough Food, Wrong Kinds | 33.9 | 40.1 | 28.0 | 26.8 | 41.5 | 21.2 | 35.2 | 41.0 | 31.4 |
| Sometimes Not Enough Food | 8.0 | 11.0 | 5.2 | 4.3 | 7.6 | 3.1 | 7.9 | 10.0 | 6.5 |
| Often Not Enough Food | 1.8 | 2.0 | 1.6 | 1.3 | 0.7 | 1.6 | 1.3 | 2.0 | 0.8 |
| Between 75% and 100% of Poverty | | | | | | | | | |
| Enough Food, Right Kinds | 60.7 | 51.1 | 65.9 | 70.6 | 63.0 | 74.5 | 54.4 | 40.7 | 61.3 |
| Enough Food, Wrong Kinds | 32.8 | 40.4 | 28.8 | 26.3 | 32.5 | 23.2 | 36.7 | 47.7 | 31.1 |
| Sometimes Not Enough Food | 4.7 | 5.8 | 4.2 | 2.3 | 3.4 | 1.7 | 6.5 | 7.2 | 6.1 |
| Often Not Enough Food | 1.7 | 2.8 | 1.2 | 0.8 | 1.1 | 0.7 | 2.5 | 4.4 | 1.5 |
| Between 100% and 130% of Poverty | | | | | | | | | |
| Enough Food, Right Kinds | 82.9 | 55.1 | 83.7 | 89.6 | 64.5 | 90.3 | 81.8 | 54.7 | 82.4 |
| Enough Food, Wrong Kinds | 15.6 | 39.4 | 15.0 | 10.0 | 32.6 | 9.4 | 16.7 | 39.4 | 16.1 |
| Sometimes Not Enough Food | 1.1 | 4.4 | 1.1 | 0.3 | 2.0 | 0.3 | 1.3 | 4.6 | 1.3 |
| Often Not Enough Food | 0.3 | 1.2 | 0.2 | 0.1 | 0.9 | 0.1 | 0.3 | 1.2 | 0.3 |
| Sample Size | 5,604 | 1,898 | 3,706 | 1,939 | 435 | 1,504 | 2,135 | 606 | 1,529 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Module

NOTES: Percentages are based on weighted data. Low-income households are those with income in the month prior to the interview month not exceeding 130 percent of the poverty threshold.

the official poverty threshold, (2) between 75 and 100 percent of poverty, and (3) between 100 and 130 percent of poverty.

Not surprisingly, as household income rises, so does the proportion of households that reported having enough food. For example, 56 percent of all households with an income of less than 75 percent of the poverty threshold reported having enough food of the right kinds, compared with 83 percent of all households with an income between 100 and 130 percent of poverty.

The differences between the food sufficiency of the poor elderly and all low-income households become smaller when households with similar income levels are compared. However, even among such households, the poor elderly were more likely to report having enough food of the right kinds and less likely to report not having enough to eat.

In each income category, working poor households were still slightly less likely than all low-income households to report having enough food of the right kinds. Furthermore, except for households in the lowest income category, working poor households were more likely than other low-income households to report sometimes or often not having enough food.

We showed in Chapter III that households that participate in the FSP have, on average, lower incomes as a percentage of poverty than those that do not. Table IV.3 suggests that some, but by no means all, of the differences in the food sufficiency of participants and nonparticipants can be explained by differences in income. Even when household income of these two groups is similar, participants are less likely than nonparticipants to report that they have enough food. This is true for poor elderly households, working poor households, and all low-income households.

3. Number of Days Without Food

For households that report not having enough to eat (often or sometimes) over the past four months, the SIPP Well-Being Module asks respondents about the number of days in the past month that

the household had no food or money (or food stamps) to buy food. Table IV.4 presents the distribution of the number of these days, and we find the following:

- ***All Low-Income Households.*** Of those that reported not having enough food, about one-fifth reported going no days in the past month without food or money to buy food, over half reported having no food or money (or food stamps) to buy food for more than six days in the past month, and over 28 percent reported having no food or money to buy food for more than 12 days in the past month.
- ***Poor Elderly Households.*** Poor elderly households with insufficient food experienced fewer days in which they had no food or money to buy food than other low-income households with insufficient food. About 27 percent of poor elderly households with insufficient food did not go a day without food or money to buy food, compared with 21 percent of all low-income households with insufficient food. And while 28 percent of all low-income households with insufficient food reported that there were more than 12 days in the past month in which they had no food or money to buy food, only 20 percent of poor elderly households reported more than 12 days with no food or money to buy food.
- ***Working Poor Households.*** Although working poor households were more likely to report not having enough food, those that did experienced fewer days without enough food or money to buy food than all low-income households with insufficient food. About 27 percent of working poor households with insufficient food reported going no days without food or money to buy food, compared with 21 percent of all low-income households with insufficient food. About the same proportion of working poor households as other low-income households with insufficient food reported that there were more than 12 days in the past month in which they had no food or money to buy food.
- ***Participant and Nonparticipant Households.*** Overall, more participants than nonparticipants reported going some days without food or money to buy food. However, except among the working poor, fewer participants than nonparticipants reported going more than 12 days without food in the past month.

4. Reasons for Food Scarcity

From a policy perspective, it is important to understand the reasons for food scarcity. If the primary reason is a lack of money, the problem may be alleviated by increasing access to food assistance programs such as the FSP. But if food scarcity is a result of other nonfinancial factors, such as difficulty getting to the grocery store, traditional food assistance programs like the FSP are unlikely to alleviate the problem.

TABLE IV.4

NUMBER OF DAYS WITHOUT FOOD
(SIPP Well-Being Module)

| Days With No Food or Money/Food Stamps to Buy Food | Percent Distribution of Low-Income Households Without Enough Food | | | | | | | | |
|---|---|--------------|----------------------|--------------|--------------|----------------------|--------------|--------------|----------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non- Participants | All | Participants | Non- Participants | All | Participants | Non- Participants |
| 0 | 21.1 | 19.9 | 22.4 | 27.1 | 26.2 | 27.8 | 27.3 | 26.9 | 27.6 |
| 1-6 | 23.5 | 26.5 | 20.2 | 26.3 | 24.5 | 27.5 | 21.6 | 19.6 | 22.8 |
| 7-12 | 27.2 | 31.5 | 22.6 | 27.0 | 28.5 | 25.9 | 22.3 | 29.2 | 17.9 |
| More than 12 | 28.2 | 22.1 | 34.8 | 19.6 | 20.8 | 18.7 | 28.8 | 24.3 | 31.7 |
| Sample Size | 418 | 217 | 201 | 61 | 27 | 36 | 175 | 69 | 106 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Module.

NOTES: Counts are based on weighted data. Low-income households are those with income in the month prior to the interview month not exceeding 130 percent of the poverty threshold.

The Well-Being Module asks those households that reported a scarcity of food (that is, often or sometimes not having enough to eat) about why this occurred. The interviewer suggests four possible reasons are (1) not enough money, food stamps, or WIC vouchers to buy food or beverages, (2) no working appliances for storing or preparing foods (such as a stove or refrigerator), (3) transportation problems or no transportation, and (4) some other reason. The distribution of reasons given by low-income households that reported a scarcity of food is shown in Table IV.5.

The most important reason given for food scarcity is not having enough money, food stamps, or WIC vouchers to buy more food. Of the 7.5 percent of all low-income households without enough food, more than 90 percent did not have enough food for this reason. Less than 20 percent gave transportation problems as a reason, just over 10 percent stated "other reasons," and less than 5 percent gave lack of working appliances as a reason.

The relative importance of each reason for not having enough food was similar in each subgroup, although two differences between subgroups are noteworthy. First, the working poor are less likely than the poor elderly or all low-income households to give transportation problems as a reason for food scarcity. Second, the poor elderly are more likely than the working poor and all low-income households to cite "other reasons" as an explanation for food scarcity.

D. ANALYSIS OF THE CPS FOOD SECURITY SUPPLEMENT

This section documents our use of the CPS Food Security Supplement. We describe the CPS Food Security Supplement, and discuss our findings on five topics covered by the supplement: (1) food sufficiency, (2) other indicators of food insecurity, (3) reasons for food scarcity, (4) food expenditure, and (5) the use of other food assistance programs.

TABLE IV.5
REASONS FOR FOOD SCARCITY
(SIPP Well-Being Module)

| Reasons for Food Scarcity | Percent Distribution of Low-Income Households | | | | | | | | |
|--|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Not Enough Money or Food Stamps/WIC Vouchers | 96.8 | 97.9 | 95.6 | 95.0 | 100.0 | 92.0 | 96.4 | 96.9 | 96.0 |
| Transportation Problems | 17.5 | 21.2 | 13.6 | 17.9 | 17.6 | 18.1 | 11.4 | 10.4 | 12.0 |
| No Working Appliances | 4.1 | 4.6 | 3.6 | 2.6 | 7.0 | 0.0 | 3.8 | 5.8 | 2.7 |
| Other | 11.4 | 11.0 | 11.8 | 12.9 | 17.5 | 10.3 | 10.1 | 14.4 | 7.5 |
| Sample Size | 401 | 212 | 189 | 58 | 26 | 32 | 169 | 69 | 100 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Module.

NOTES: Counts are based on weighted data. Low-income households are those with income in the month prior to the interview month not exceeding 130 percent of the poverty threshold.

1. Description of the CPS Food Security Supplement

The CPS is a nationally representative, monthly household survey conducted by the U.S. Bureau of the Census under the sponsorship of the Bureau of the Labor Statistics. It was designed to provide information on the size and characteristics of the labor force. The core monthly CPS questionnaire collects information on labor force participation in the week prior to the interview. It also collects some basic demographic and economic information, including age, household size, place of residence, and annual family income.

The Food Security Supplement to the CPS was fielded for the first time in April 1995. This supplement, developed by FCS and implemented by the Census Bureau, was designed to provide the information needed to measure hunger and food insecurity in the U.S. It contains 25 indicators of food insecurity, including indicators of food sufficiency, food scarcity, coping behaviors, and concerns about food sufficiency. In addition, it asks about reasons for food scarcity, expenditures on food, and use of food assistance programs. All respondents are asked the basic food sufficiency question or a variant of this question, questions about food expenditure, and questions about participation in food assistance programs. All households with a family income of less than 185 percent of poverty are asked a series of more detailed food security questions.⁸

As neither the April CPS core file nor the Food Security Supplement contain information on the food stamp unit, assets, or expenses, we cannot use the database to accurately determine FSP eligibility. Hence, following the same approach used in the analysis of the SIPP Well-Being Module, we approximate FSP-eligibility using an income screen of 130 percent of the poverty level. Our analysis is based on a sample of 10,039 households that meet our screen.

⁸The more detailed food security questions are also asked of households that, regardless of income, either (1) responded that they often or sometimes did not have enough to eat or (2) responded that they had enough food but not always of the kinds they wanted and had run short of money to buy food in the past 12 months.

The income screen is not as accurate a basis for approximating eligibility when using the April CPS relative to the SIPP Well-Being Module and corresponding SIPP files for four reasons:⁹

1. ***The core CPS asks only for annual income.*** We count as eligible for food stamps all households that had *average* monthly income not exceeding 130 percent of poverty. Because we use the average, we count as eligible some households with income in the previous month higher than 130 percent of poverty, and as ineligible some households with income below 130 percent of poverty in the previous month. SIPP collects monthly income data.
2. ***The CPS asks only for income in bands of \$2,499 or more.*** Following the same rule used by the Food Security Supplement in screening for low-income households, we assign all households the lower end of the income range. SIPP asks for the exact amount of income.
3. ***The core CPS collects information on income using only one question.***¹⁰ Evidence suggests that underreporting of income is more severe, the fewer the questions devoted to collecting income information (Citro and Michael 1995). SIPP asks separately about more than 60 sources of money income.
4. ***The core CPS collects information on family income and the number of persons in the household.*** Following the same rule used by the Food Security Supplement in screening for low-income households, we compare *family* income with the poverty threshold applicable to the number of persons in the *household*. SIPP collects information on household income.

Assigning the lower limit of the income range, relying on income information collected by only one question, and using *family* income and the poverty threshold applicable to the *household* each result in an overestimate of the number of households that have income at or below 130 percent of poverty, and hence the number of FSP-eligible households. Table IV.6 shows that over 23 million households meet our screen for FSP-eligibility using the CPS. This is about 34 percent higher than the count of households that meet our eligibility criteria using the SIPP Well-Being Module and corresponding core

⁹The March Supplement to the CPS contains information on assets and more detailed information on income. If linked to the April CPS, this could be used to determine FSP-eligibility more accurately for the households that were interviewed in both months.

¹⁰The March Supplement to the CPS asks about 35 sources of income.

TABLE IV.6

NUMBER OF LOW-INCOME HOUSEHOLDS BY FSP PARTICIPATION
STATUS AND SUBGROUP
(CPS Food Security Supplement)

| | Number of Households in Thousands | | |
|----------------|-----------------------------------|--------------|-----------------|
| | All Low-Income | Participants | Nonparticipants |
| All Low-Income | 23,209 | 7,144 | 16,066 |
| Poor Elderly | 7,943 | 1,544 | 6,399 |
| Working Poor | 12,793 | 2,988 | 9,805 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Counts are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold.

files, and 70 percent higher than the count of eligible households based on the asset and expense modules of SIPP for January 1992 (Table III.1).

The definitions of poor elderly and food stamp participant households used in the analysis of the CPS Food Security Supplement are similar to those in our analyses of the January 1992 SIPP cross-section (Chapter III) and the SIPP Well-Being Module (Section C of this chapter). Using the CPS, we define poor elderly households as low-income households that contain at least one person 60 years of age or older in the month of the interview. We designate a household as an FSP participant if the household reported that it received food stamps within the past 30 days.

The definition of working poor households used in this analysis, however, does differ from the definitions used in the January 1992 SIPP cross-section and the SIPP Well-Being Module. While SIPP asks about earnings in the past month, the core CPS asks about employment in the past week only. Hence, for the analysis of the CPS Food Security Supplement, we define a household as working poor if someone in the low-income household worked in the past *week* rather than the past month. Despite this narrower definition, the proportion of low-income households with earnings in the CPS sample is higher than the proportion of households with earnings in the SIPP data. Hence, the proportion of both FSP-participant households and FSP-eligible nonparticipant households that are defined as working poor in our CPS analysis (Table IV.6) is higher than the proportion in our SIPP analysis (Table IV.1). The first reason for this difference is that the proportion of households with earnings increases as the level of household income increases, and as discussed above, the average *actual* income of households in the CPS sample is probably higher than the average income of households in the SIPP data. A second reason is that there is less underreporting of employment in the CPS than in SIPP because the CPS was designed to collect labor force information (Citro and Michael 1995).

To further explore the differences between the CPS and SIPP, Appendix C presents tables of the characteristics of households in the CPS and compares them with the characteristics of households in

the January 1992 SIPP cross-section and the SIPP Well-Being Module. We find that the characteristics of the households are quite similar.

2. Food Sufficiency

The distribution of responses from low-income households to the basic food sufficiency question (or a variant of this question) in the CPS Food Security Supplement is shown in Table IV.7.

- **All Low-Income Households.** About 63 percent of all low-income households reported having enough food of the right kinds.
- **Poor Elderly Households.** Poor elderly households were more likely than all low-income households to report having enough food and less likely to report not having enough to eat. About 75 percent of all poor elderly households reported having enough food of the right kinds, compared with 63 percent of all low-income households. About 8 percent reported sometimes not having enough to eat, and less than 2 percent reported often not having enough to eat.
- **Working Poor Households.** Working poor households were very slightly more likely than all low-income households to report having enough food and less likely to report not having enough to eat. About 63 percent of all working poor households reported having enough food of the right kinds, 14 percent reported sometimes not having enough to eat, and about 2 percent reported often not having enough to eat.
- **Participant and Nonparticipant Households.** Participants were much less likely than nonparticipants to report that they had enough food of the right kinds and more likely to report that they sometimes or often did not have enough to eat. This is true for all low-income households and for the subgroups of poor elderly and working poor households.

Most of the estimates are similar to those generated through the SIPP Well-Being Module (see Table IV.2). However, the distribution of food sufficiency reflected in the CPS Food Security Supplement differs in two ways from the distribution in the SIPP Well-Being Module discussed earlier. First, while working poor households in SIPP are slightly *less* likely to be food sufficient than low-income households in general, working poor households in CPS are *more* food sufficient than low-income households in general. However, this difference in food sufficiency is small in both data sources. And according to both sources, working poor nonparticipants are less likely than other low-

TABLE IV.7

DISTRIBUTION OF FOOD SUFFICIENCY
(CPS Food Security Supplement)

| Response to Food Sufficiency Question (s) | Percent Distribution of Low-Income Households | | | | | | | | |
|--|---|--------------|----------------------|--------------|--------------|----------------------|--------------|--------------|----------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non- Participants | All | Participants | Non- Participants | All | Participants | Non- Participants |
| Enough Food, Right Kinds | 62.5 | 46.2 | 69.8 | 74.5 | 54.1 | 79.5 | 62.7 | 48.8 | 66.9 |
| Enough Food, Wrong Kinds | 20.5 | 25.6 | 18.3 | 15.9 | 24.6 | 13.8 | 21.3 | 25.2 | 20.1 |
| Sometimes Not Enough Food | 14.1 | 23.2 | 10.0 | 8.1 | 17.7 | 5.8 | 13.7 | 22.7 | 10.9 |
| Often Not Enough Food | 2.9 | 5.0 | 2.0 | 1.5 | 3.7 | 0.9 | 2.3 | 3.3 | 2.0 |
| Sample Size | 10,028 | 2,869 | 7,159 | 3,639 | 648 | 2,991 | 5,459 | 1,180 | 4,279 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Percentages are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold.

income nonparticipants to have enough food of the right kinds and more likely not to have enough to eat.

Second, compared with low-income households in the SIPP Well-Being Module, a lower proportion of low-income households in the CPS Food Security Supplement reported having enough food but not of the right kinds, and a higher proportion reported sometimes not having enough to eat. For example, about 21 percent of all low-income households in the CPS sample reported that they had enough food but of the wrong kinds compared with 32 percent in the SIPP sample. And about 14 percent of all low-income households in the CPS sample reported sometimes having not enough to eat, compared with 6 percent in the SIPP.

Much of this difference can be attributed to the different structure of the food sufficiency questions. The SIPP Well-Being Module asks about food sufficiency in one question that covers both the amount and kinds of food eaten. In a question similar to this one, the CPS Food Security Supplement asks one-eighth of the sample about food sufficiency. However, it asks the other seven-eighths of the sample separately about the amount of food eaten and the kinds of foods eaten. Table IV.8 presents the distribution of reported food sufficiency of low-income households by question structure.

When asked separately about the amount and kinds of foods eaten, households were more likely to respond that they sometimes did not have enough food and less likely to respond that they had enough food but of the wrong kinds. Hence, when the CPS sample is restricted to households that were asked the single food sufficiency question, the distribution of responses more closely resembles the distribution of responses in the SIPP Well-Being Module, which also uses one food sufficiency question.

Table IV.9 shows the distribution of food sufficiency for low-income households in the CPS sample in three income ranges. As in the SIPP Well-Being Module, greater food sufficiency was reported by poor elderly households relative to all low-income households in the CPS, even when

TABLE IV.8

IMPACT OF QUESTION STRUCTURE ON REPORTS OF FOOD SUFFICIENCY

| Response to Food Sufficiency Question(s) | Percent Distribution of Low-Income Households | | | |
|--|---|---|--|--|
| | CPS Food Security Supplement | | | SIPP Well-Being Module |
| | All Low-Income Households | Households Asked About Amounts and Kinds of Food in One Question ^a | Households Asked About Amounts and Kinds of Food in Two Questions ^b | All Low-Income Households (Asked About Amounts and Kinds of Foods in One Question) |
| Enough Food, Right Kinds | 62.5 | 62.8 | 62.5 | 60.5 |
| Enough Food, Wrong Kinds | 20.5 | 27.3 | 19.5 | 32.1 |
| Sometimes Not Enough Food | 14.1 | 7.2 | 15.1 | 6.1 |
| Often Not Enough Food | 2.9 | 2.7 | 2.9 | 1.4 |
| Sample Size | 10,028 | 1,294 | 8,734 | 5,604 |

SOURCE: April 1995 CPS core file and Food Security Supplement and 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Module.

NOTES: Percentages are based on weighted data. For the CPS samples, low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold. For the SIPP sample, low-income households are those with income in the month prior to the interview month not exceeding 130 percent of poverty.

^aHouseholds in their eighth interview month.

^bHouseholds not in their eighth interview month.

TABLE IV.9

DISTRIBUTION OF FOOD SUFFICIENCY BY HOUSEHOLD INCOME
(CPS Food Security Supplement)

| Income Level | Percent Distribution of Low-Income Households | | | | | | | | |
|--|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Less Than 75% of Poverty | | | | | | | | | |
| Enough Food, Right Kinds | 58.1 | 45.7 | 68.0 | 69.1 | 53.3 | 75.9 | 59.8 | 48.8 | 65.8 |
| Enough Food, Wrong Kinds | 21.6 | 25.9 | 18.1 | 18.3 | 24.4 | 15.6 | 21.6 | 26.1 | 19.2 |
| Sometimes Not Enough Food | 16.5 | 23.0 | 11.3 | 11.2 | 19.0 | 7.8 | 15.2 | 21.2 | 12.0 |
| Often Not Enough Food | 3.8 | 5.3 | 2.6 | 1.5 | 3.3 | 0.7 | 3.3 | 3.9 | 3.0 |
| Between 75% and 100% of Poverty | | | | | | | | | |
| Enough Food, Right Kinds | 61.2 | 51.0 | 64.0 | 73.3 | 55.2 | 77.4 | 60.7 | 51.5 | 63.1 |
| Enough Food, Wrong Kinds | 22.5 | 22.4 | 22.6 | 16.9 | 22.7 | 15.6 | 22.9 | 21.6 | 23.2 |
| Sometimes Not Enough Food | 14.3 | 23.3 | 11.4 | 7.3 | 13.9 | 5.8 | 15.2 | 25.6 | 12.6 |
| Often Not Enough Food | 2.0 | 3.3 | 1.6 | 2.6 | 8.3 | 1.3 | 1.2 | 1.4 | 1.2 |
| Between 100% and 130% Poverty | | | | | | | | | |
| Enough Food, Right Kinds | 70.9 | 45.3 | 73.5 | 82.3 | 59.2 | 83.6 | 67.3 | 46.1 | 69.4 |
| Enough Food, Wrong Kinds | 17.8 | 26.3 | 17.0 | 12.4 | 27.5 | 11.5 | 20.3 | 24.4 | 19.8 |
| Sometimes Not Enough Food | 9.7 | 25.1 | 8.2 | 4.3 | 11.1 | 3.9 | 11.0 | 27.3 | 9.4 |
| Often Not Enough Food | 1.5 | 3.3 | 1.4 | 1.1 | 2.3 | 1.1 | 1.4 | 2.1 | 1.4 |
| Sample Size | 10,028 | 2,869 | 7,159 | 3,639 | 648 | 2,991 | 5,459 | 1,180 | 4,279 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Percentages are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold.

households with similar income are compared. This is true for all poor elderly households, poor elderly participants, and poor elderly nonparticipants. While, in the SIPP Well-Being Module, working poor households reported more food sufficiency than other households with similar income, the differences between working poor households and all low-income households in the CPS are small and do not follow a pattern (Table IV.9). As in the SIPP Well-Being Module, the CPS data indicate that participants are less food sufficient than nonparticipants even when households with a similar income level are compared. Again, this is true for comparisons between all low-income participants and all low-income nonparticipants, poor elderly participants and poor elderly nonparticipants, and between working poor participants and working poor nonparticipants.

3. Other Indicators of Food Insecurity

In this section, we discuss three sets of other indicators of food insecurity: (1) indicators of food scarcity, (2) coping behaviors, and (3) concerns about food sufficiency.

a. Indicators of Food Scarcity

For a set of experiences associated with food insecurity, the CPS Food Security Supplement asks whether the household has had the given experience within the past 12 months, and if it has, whether it has had the experience within the past 30 days. Because the pattern of responses to questions about the past 12 months is similar to the pattern of responses to questions about the past 30 days, we present only the distribution of responses to the questions that refer to the past 30 days (Table IV.10). The experiences are listed in order of the severity of food insecurity associated with it, beginning with the least severe. The top panel presents indicators of food scarcity relevant to all households. The bottom panel of the table presents indicators of food scarcity relevant to households with children.¹¹

¹¹As only a small proportion of poor elderly households have children, we do not present the distribution of responses by poor elderly households.

TABLE IV.10

INDICATORS OF FOOD SCARCITY EXPERIENCED IN PAST 30 DAYS
(CPS Food Security Supplement)

| Indicators | Percent Distribution of Low-Income Households | | | | | | | | |
|---|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| All Households | | | | | | | | | |
| Running Out of Food and Having No Money for More | 12.6 | 19.9 | 9.3 | 6.4 | 14.5 | 4.4 | 12.1 | 17.8 | 10.3 |
| Cutting or Skipping Meals Because Not Enough Food | 10.0 | 15.6 | 7.6 | 5.2 | 11.7 | 3.7 | 9.1 | 12.6 | 8.0 |
| Eating Less Than They Thought They Should | 9.0 | 13.4 | 7.1 | 4.9 | 10.2 | 3.7 | 8.3 | 10.9 | 7.5 |
| Hunger Because They Could Not Afford Food | 4.8 | 7.1 | 3.7 | 2.1 | 4.6 | 1.5 | 4.3 | 5.4 | 4.0 |
| Not Eating for a Whole Day | 2.4 | 3.9 | 1.7 | 0.7 | 1.8 | 0.4 | 1.9 | 2.7 | 1.7 |
| Households With Children | | | | | | | | | |
| Cutting the Size of a Child's Meals | 3.0 | 3.8 | 2.3 | - | - | - | 2.1 | 2.1 | 2.2 |
| A Child Hungry Because They Could Not Afford Food | 2.5 | 3.4 | 1.7 | - | - | - | 2.2 | 3.1 | 1.7 |
| Skipping a Child's Meal Because No Money for Food | 1.1 | 1.5 | 0.7 | - | - | - | 0.9 | 1.5 | 0.7 |
| A Child Not Eating for Whole Day | 0.2 | 0.3 | 0.2 | - | - | - | 0.2 | 0.1 | 0.2 |
| (Sample Size) | (4,510) | (1,917) | (2,593) | | | | (3,245) | (971) | (2,274) |
| Sample Size | 10,015 | 2,866 | 7,149 | 3,641 | 647 | 2,994 | 5,449 | 1,181 | 4,268 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Percentages are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold. Sample sizes refer to the number of households that responded to the first question listed in the table. Slightly different numbers of households may have responded to other questions listed here.

- **All Low-Income Households.** About 13 percent of all low-income households ran out of food and had no money to buy more in the past 30 days. About 2 percent of respondents in low-income households reported not eating for a whole day--an indicator of adult hunger. About 3 percent of all low-income households with children cut the size of a child's meals--an indicator of child hunger. The most severe indicator of food scarcity--a child in the household not eating for a whole day--was experienced in the past 30 days by 0.2 percent of all low-income households with children.
- **Poor Elderly Households.** Poor elderly households reported experiencing each of the indicators of food scarcity listed in Table IV.10 less often than all low-income households. For example, only 0.7 percent of poor elderly households reported not eating for a whole day in the past 30 days, compared with 2.4 percent of all low-income households. Poor elderly participants also reported experiencing each of the indicators of food scarcity less frequently than all low-income participants; and poor elderly nonparticipants reported experiencing each of the indicators of food scarcity less frequently than low-income nonparticipants.
- **Working Poor Households.** Working poor households also reported experiencing each of the indicators of food scarcity less frequently than other low-income households, but the differences are small. For example, 1.9 percent of working poor households reported not eating for a whole day sometime in the past 30 days, compared with 2.4 percent of all low-income households. However, working poor *nonparticipants* had experiences associated with food scarcity (except for cutting the size of a child's meal) as frequently, or more often, than all low-income nonparticipants.
- **Participant and Nonparticipant Households.** For all low-income households, the poor elderly and the working poor, participants were much more likely than nonparticipants to report experiencing food scarcity. This is also true for each of the indicators of food scarcity except for a child not eating for a whole day.

b. Coping Behaviors

The CPS Food Security Supplement asks respondents a series of questions about what they did in the past year when they ran out of food (coping behaviors). An advantage of this approach to measuring food security is that people are more likely to respond truthfully to questions about their actions to solve problems of food scarcity rather than about the food scarcity itself, especially if they are embarrassed about the food scarcity in their household. Table IV.11 presents the distribution of responses to these questions.

TABLE IV.11
COPING BEHAVIORS
(CPS Food Security Supplement)

| Behavior Reported in the Past 12 Months | Percent Distribution of Low-Income Households | | | | | | | | |
|---|---|--------------|----------------------|--------------|--------------|----------------------|--------------|--------------|----------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non- Participants | All | Participants | Non- Participants | All | Participants | Non- Participants |
| All Households | | | | | | | | | |
| Putting Off Paying Bills So Can Purchase Food | 29.5 | 41.3 | 24.3 | 13.6 | 25.5 | 10.8 | 33.2 | 45.7 | 29.4 |
| Serving Only a Few Kinds of Foods | 24.5 | 36.1 | 19.2 | 17.8 | 34.0 | 13.8 | 23.0 | 32.0 | 20.2 |
| Getting Food or Borrowing Money from Friends or Relatives | 22.4 | 33.1 | 17.6 | 9.3 | 18.3 | 7.2 | 23.0 | 31.8 | 20.3 |
| Getting Emergency Food from Church, Food Pantry, or Food Bank | 10.1 | 20.7 | 5.4 | 5.3 | 13.5 | 3.4 | 8.8 | 19.8 | 5.4 |
| Eating Meals at a Soup Kitchen | 1.5 | 2.9 | 0.9 | 0.7 | 1.4 | 0.5 | 0.9 | 1.8 | 0.7 |
| Households With Children | | | | | | | | | |
| Sending a Child to Friend or Relative Because Running Out of Food | 7.8 | 10.9 | 5.3 | - | - | - | 6.4 | 9.1 | 5.1 |
| (Sample Size) | (4,533) | (1,922) | (2,611) | | | | (3,262) | (973) | (2,289) |
| Sample Size | 10,018 | 2,867 | 7,151 | 3,639 | 648 | 2,991 | 5,452 | 1,179 | 4,273 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Percentages are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold. Sample sizes refer to the number of households that responded to the first question in the table. Slightly different numbers of households may have responded to other questions listed here.

- ***All Low-Income Households.*** Households most frequently put off paying other bills when they run out of food. This action was reported by nearly 30 percent of all low-income households. Other frequent actions include serving only a few kinds of foods and getting food or borrowing money for food from friends or relatives. The action taken least often is to eat meals at a soup kitchen.
- ***Poor Elderly Households.*** Poor elderly households reported each coping behavior less frequently than all low-income households. The differences are large. For example, the proportion of poor elderly households that reported getting food or borrowing money for food from friends or relatives (9 percent) is less than half the proportion of all low-income households that reported this coping behavior (22 percent).
- ***Working Poor Households.*** Working poor households reported putting off paying bills to pay for food more frequently than other groups. However, the working poor are less likely to adopt coping behaviors that reflect more severe food insecurity (such as eating meals at soup kitchens or sending a child to eat at the home of a friend or relative).
- ***Participant and Nonparticipant Households.*** Participants reported using each coping behavior more frequently than nonparticipants.

One other interesting finding, shown in Table IV.11, is that while the most frequent response to food scarcity among all low-income households is to put off paying bills, the most frequent response of poor elderly households is to serve only a few kinds of food.

c. Concerns About Food Sufficiency

The final set of indicators of food insecurity collected by the CPS Food Security Supplement relate to concerns about food sufficiency. The respondent is presented with a series of statements about possible food sufficiency concerns and asked whether this was often, sometimes, or never true in the past 12 months. Table IV.12 presents the proportion of households that reported that these statements were often or sometimes true.

The distribution of responses to these questions mirrors the patterns revealed by other indicators of food insecurity:

TABLE IV.12

CONCERNS ABOUT FOOD SUFFICIENCY
(CPS Food Security Supplement)

| Concerns That Were Often or Sometimes True in the Past 12 Months: | Percent Distribution of Low-Income Households | | | | | | | | |
|---|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| All Households | | | | | | | | | |
| Respondent Worried About Food Running Out | 40.8 | 60.4 | 31.9 | 24.3 | 45.8 | 19.1 | 40.7 | 58.8 | 35.1 |
| Food Did Not Last and Respondent Had No Money for More | 33.0 | 50.2 | 25.3 | 19.6 | 37.7 | 15.2 | 31.3 | 46.0 | 26.8 |
| Respondent Couldn't Afford to Eat Balanced Meals | 30.4 | 44.8 | 24.0 | 20.0 | 38.6 | 15.5 | 29.1 | 40.8 | 25.6 |
| Households With Children | | | | | | | | | |
| Children Could Eat Only a Few Low-Cost Foods | 33.9 | 44.5 | 25.3 | - | - | - | 30.5 | 40.9 | 25.6 |
| Children Couldn't Eat Balanced Meals | 22.8 | 30.3 | 16.8 | - | - | - | 19.8 | 27.0 | 16.4 |
| Children Couldn't Eat Enough | 13.7 | 18.2 | 10.0 | - | - | - | 11.3 | 15.1 | 9.6 |
| (Sample Size) | (4,494) | (1,910) | (2,584) | | | | (3,237) | (970) | (2,267) |
| Sample Size | 9,933 | 2,850 | 7,083 | 3,608 | 643 | 2,965 | 5,412 | 1,174 | 4,238 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Percentages are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold. Sample sizes refer to the number of households that responded to the first question in the table. Slightly different numbers of households may have responded to other questions listed here.

- ***All Low-Income Households.*** About 41 percent of respondents in all low-income households were concerned over the past 12 months about food running out.
- ***Poor Elderly Households.*** Fewer poor elderly households were concerned about food sufficiency. The differences are large. For example, only 24 percent of poor elderly households worried about food running out in the past 12 months, compared with 41 percent of all low-income households.
- ***Working Poor Households.*** Slightly fewer working poor households were concerned about food sufficiency than other low-income households, although the differences are small. However, except for concerns related to the most severe food insufficiency (such as children not eating enough), more working poor *nonparticipants* were concerned about food sufficiency than other low-income nonparticipants.
- ***Participant and Nonparticipant Households.*** Participants were more concerned about food sufficiency than nonparticipants. The differences are again large. About 60 percent of participants worried about food running out often or sometimes in the past 12 months, compared with only 32 percent of low-income nonparticipants.

4. Reasons for Food Scarcity

Like the SIPP Well-Being Module, the CPS Food Security Supplement asks those households that reported often or sometimes not having enough to eat about the reasons for the food scarcity. Table IV.13 presents the distribution of the reasons given by low-income households in the CPS. As in the SIPP Well-Being Module, the most important reason, given by nearly 94 percent of all low-income households in the CPS, is that the household did not have enough money. This response was given slightly less often (92 percent) by poor elderly households and slightly more often (just over 94 percent) by working poor households. Participants also gave this reason more frequently than nonparticipants. The fact that such a large majority of the respondents gave this as a reason for food scarcity confirms that most of the food scarcity faced by the households in our sample is a result of a lack of resources to purchase food.

Other reasons for food scarcity included:

TABLE IV.13

REASONS FOR FOOD SCARCITY: HOUSEHOLDS WITH INSUFFICIENT FOOD
(CPS Food Security Supplement)

| Reason | Percent Distribution of Low-Income Households | | | | | | | | |
|---|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Not Enough Money | 93.7 | 95.6 | 91.6 | 91.7 | 95.1 | 89.1 | 94.1 | 96.7 | 92.6 |
| Not Able to Get to Store | 21.1 | 24.3 | 17.7 | 28.3 | 25.9 | 30.1 | 14.4 | 20.5 | 10.6 |
| No Working Stove | 3.8 | 2.7 | 5.0 | 3.4 | 2.0 | 4.4 | 2.9 | 1.0 | 4.1 |
| No Working Refrigerator | 3.2 | 2.3 | 4.2 | 2.8 | 1.8 | 3.5 | 2.6 | 1.5 | 3.3 |
| Not Able to Cook or Eat Because of Health Problems | 8.2 | 7.3 | 9.2 | 16.7 | 14.8 | 18.2 | 3.9 | 3.9 | 4.0 |
| Sample Size | 1,544 | 791 | 753 | 307 | 133 | 174 | 787 | 294 | 493 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Percentages are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold.

- ***Not Able to Get to the Store.*** Not surprisingly, compared with all low-income households, this reason was more important for poor elderly households (cited by 28 percent) and less important for working poor households (cited by 14 percent). In addition, participants (except for the elderly) gave difficulty getting to the store as a reason for food scarcity more frequently than nonparticipants. This is curious because if a major reason for nonparticipation is difficulty getting to the food stamp office, we would expect that nonparticipants would have more trouble getting to the store.
- ***No Working Stove or Refrigerator.*** About 7 percent of all low-income households said they did not have enough to eat because the stove or refrigerator was not working. About the same percentage of poor elderly households also gave this as a reason for food scarcity. The working poor gave this as a reason slightly less often, and nonparticipants cited it more often than participants in each group.
- ***Not Able to Cook or Eat Because of Health Problems.*** About 8 percent of low-income households reported health problems as a reason for food scarcity. This may explain the high proportion of respondents giving “other reasons” for food scarcity in the SIPP Well-Being Module, which did not explicitly give health problems as a possible reason for scarce food. As expected, this reason was given by a much higher proportion (nearly 17 percent) of the poor elderly and a much lower proportion (about 4 percent) of the working poor. A higher proportion of nonparticipants than participants gave this as a reason.

5. Food Expenditure

The CPS Food Security Supplement asks a series of detailed questions about expenditure on food.

While food expenditure is not a measure of food insecurity, the patterns of food expenditure can shed light on reasons for the observed differences in food security across low-income groups.

To examine these patterns, we constructed a measure of usual weekly food expenditure from the responses to the questions about food purchases. The questions probed respondents to include purchases made with both cash and food stamps. Mean values of usual weekly food expenditure and usual weekly food expenditure per person are presented in Table IV.14. Among all low-income households, the average usual food expenditure was about \$68 per week and about \$28 per person per week. These estimates are similar to those based on other data sources. For example, using the 1982-83 Consumer Expenditure Surveys, Boldin and Burghardt (1989) estimated weekly food expenditure for

TABLE IV.14

USUAL WEEKLY FOOD EXPENDITURE
(CPS Food Security Supplement)

| | All Low-Income Households | | | Poor Elderly | | | Working Poor | | |
|---|---------------------------|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Mean Values | | | | | | | | | |
| Weekly Food Expenditures | \$67.93 | \$70.73 | \$66.71 | \$50.08 | \$49.72 | \$50.17 | \$77.01 | \$78.91 | \$76.43 |
| Weekly Food Expenditures Per Person | \$27.95 | \$23.60 | \$29.84 | \$29.89 | \$26.05 | \$30.77 | \$26.62 | \$21.69 | \$28.10 |
| Weekly Food Expenditures Scaled by Income Measure ^a | 0.53 | 0.70 | 0.46 | 0.39 | 0.47 | 0.36 | 0.51 | 0.64 | 0.47 |
| Mean Values of Weekly Food Expenditures Per Person By Income | | | | | | | | | |
| Less Than 75% of Poverty | \$27.74 | \$23.46 | \$31.11 | \$29.85 | \$26.56 | \$31.20 | \$26.39 | \$21.28 | \$29.17 |
| Between 75% and 100% of Poverty | \$24.87 | \$22.26 | \$25.70 | \$25.47 | \$20.80 | \$26.53 | \$24.40 | \$21.86 | \$25.05 |
| More Than 100 % of Poverty | \$29.57 | \$26.12 | \$29.93 | \$31.22 | \$27.77 | \$31.41 | \$27.91 | \$23.50 | \$28.36 |
| Sample Size | 8,748 | 2,457 | 6,291 | 2,953 | 506 | 2,477 | 5,038 | 1,074 | 3,964 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Percentages are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold.

^aWeekly household food expenditures are multiplied by 52 and divided by the mid-point of the band of annual family income.

low-income households to be about \$2,248 in then-current dollars per year, which is about \$63 per week in 1995 dollars.¹²

The greater food security of poor elderly households relative to all low-income households is consistent with their higher expenditure on food. Poor elderly households spend less per household on food than other low-income households, but only because they typically have smaller households. Poor elderly households spend nearly \$2 (about 7 percent) *more* per person per week on food than other low-income households. Poor elderly participants spend more than other participants on food per person, and poor elderly nonparticipants spend more on food per person than do other nonparticipants.

Working poor households spend more per household on food than other low-income households, but they spend over \$1 (about 5 percent) *less* on food per person per week than other low-income households. Working poor participants spend less per person than other participants; and working poor nonparticipants spend less per person than other low-income nonparticipants. Possible explanations for the greater food security of working poor households despite a lower food expenditure per person include greater access to other food sources that do not require expenditures (such as in-kind food assistance programs), an ability to buy food more cheaply (perhaps because they can buy in large quantities), or lower per-person food needs (perhaps because they are more likely to have children in the household).

Including purchases made with both cash and food stamps, participants spend over \$6 (about 26 percent) less on food per person per week than do low-income nonparticipants. In addition, poor elderly participants spend less on food per person than do poor elderly nonparticipants, and working poor participants spend less on food per person than do working poor nonparticipants. These findings are consistent with our finding that participants have lower food security than nonparticipants.

¹²Boldin and Burghardt define low-income households as those with income not exceeding 130 percent of poverty and with reported liquid assets of less than the FSP asset limit.

To what extent can these differences in food expenditure be explained by differences in income? In the bottom half of Table IV.14, we show average weekly food expenditure per person for households in three income categories. Once we divide households by income, the poor elderly still spend more per person on food than other low-income households with similar income; the working poor spend less per person on food than other low-income households with similar income; and participants spend less per person on food than low-income nonparticipants with similar income.

Why do poor elderly households spend more on food per person than working poor households with similar income? One potential explanation is that poor elderly households are typically smaller than working poor households. Smaller households cannot benefit from the lower unit prices associated with buying food in greater quantities and hence may need to spend more (Nelson et al. 1985). Another potential explanation is that, compared with working poor households, poor elderly households may have more resources to spend on food because they have more assets or fewer expenses for other necessities, such as housing or transportation. In addition, nonparticipants spend more per person on food than participants with similar income, and the explanations may be similar.

6. Use of Other Food Assistance Programs

Differences in the use of food assistance programs may explain some of the differences in food security and FSP participation between the working poor and poor elderly subsets and other low-income household. Table IV.15 presents the proportion of low-income households that use five food assistance programs other than the FSP. Overall, nearly 35 percent of all low-income households reported receiving food assistance from one or more programs other than the FSP. Only about 14 percent of poor elderly households participate in other programs, while about 39 percent of working poor households participate in other food assistance programs. This difference reflects the higher number of food assistance programs, such as school meal programs and WIC, available to households with children.

TABLE IV.15

USE OF OTHER FOOD ASSISTANCE PROGRAMS
(CPS Food Security Supplement)

| Assistance Program | Percent Distribution of Low-Income Households Receiving Assistance | | | | | | | | |
|--|--|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Low-Income | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Free Or Reduced-Cost Meals for the Elderly | 2.0 | 1.7 | 2.1 | 5.9 | 7.9 | 5.4 | 0.5 | 0.3 | 0.5 |
| Free or Reduced-Cost School Lunches | 24.4 | 43.9 | 15.7 | 5.4 | 14.0 | 3.3 | 29.1 | 52.4 | 21.9 |
| Free or Reduced-Cost School Breakfasts | 15.7 | 29.6 | 9.5 | 3.3 | 8.6 | 2.0 | 18.4 | 35.8 | 13.1 |
| Free or Reduced-Cost Meals at Day Care or Head Start | 5.4 | 11.2 | 2.9 | 1.0 | 3.6 | 0.4 | 6.1 | 12.7 | 4.2 |
| WIC Vouchers | 10.6 | 21.7 | 5.7 | 1.6 | 4.5 | 1.0 | 12.4 | 26.4 | 8.2 |
| Food or Food Vouchers From Other Programs Not Listed Above (Excluding Food Stamps) | 1.8 | 3.4 | 1.1 | 2.0 | 3.5 | 1.6 | 1.4 | 3.4 | 0.8 |
| Food or Food Vouchers From Any Source Other Than FSP | 34.7 | 61.1 | 23.0 | 13.6 | 26.3 | 10.5 | 39.0 | 71.3 | 29.2 |
| Sample Size | 10,039 | 2,873 | 7,166 | 3,645 | 648 | 2,997 | 5,462 | 1,182 | 4,280 |

SOURCE: April 1995 CPS core file and Food Security Supplement.

NOTES: Percentages are based on weighted data. Low-income households are those with average monthly family income in the 12 months prior to the interview month not exceeding 130 percent of the poverty threshold.

As explained in Chapter III, FSP participants are much more likely than nonparticipants to participate in other public assistance programs. The proportion of all low-income participants that receive any other food assistance (61 percent) is more than twice the proportion of all low-income nonparticipants that receive other food assistance (23 percent).

Two factors may explain this association between FSP participation and participation in other food assistance programs. First, households that participate in other programs may be more likely to learn about the FSP, and households may learn about other sources of food assistance while participating in the FSP. Second, the types of households that need food stamps and are willing to incur the costs of participation are also likely to need other food assistance and to be willing to incur any cost of obtaining that help.

To what extent can differences in the use of other food assistance programs explain the low FSP participation rates of the working poor and poor elderly in particular? Since the working poor are *more* likely than other low-income households to participate in other food assistance programs, the positive association between FSP participation and participation in other food assistance programs cannot explain their low FSP participation rates. On the other hand, only a small proportion of poor elderly households participate in other food assistance programs. However, as explained in Chapter III, nearly one-third of poor elderly households participate in SSI. Unless food assistance programs are more likely than programs such as SSI to refer poor elderly to the FSP, the lower use of food assistance programs is unlikely to be an explanation for the low FSP participation rates of the poor elderly.

E. SUMMARY

Our analysis of food security, using two different data sources, for the most part, reveals a clear and consistent picture of the food security patterns for the poor elderly and working poor.

1. Poor Elderly Households: Food Security, Food Expenditure, and Use of Other Food Assistance Programs

How food secure are the poor elderly? We find that:

- Between 73 and 75 percent of poor elderly households have enough food of the kinds they want.
- Between 16 and 24 percent of poor elderly households have enough food, but not of the kinds they want.
- Between 3 and 8 percent of poor elderly households sometimes do not have enough to eat.
- Between 1 and 2 percent of poor elderly households often do not have enough to eat.
- Most of the reported food security is because of resource constraints. Between 90 and 95 percent of poor elderly households that reported not having enough food did not have money or food vouchers to buy more.

Our findings strongly suggest that poor elderly households are more food secure than other low-income households. Poor elderly households are more likely than other low-income households to report that they have enough food of the kinds they want, and less likely to report that they sometimes or often did not have enough to eat. They are also less likely to show a wide range of other signs of food insecurity, including food scarcity (such as skipping meals), coping behaviors (such as putting off paying bills so they can buy food), and concerns about food insufficiency.

Poor elderly households spend about \$2 per person per week more than all low-income households on food. This is partly because they have, on average, a higher income per person. However, even compared with other households with similar income, poor elderly households spend more per person on food. This may reflect that the cost of food is higher per unit when bought in small quantities. Another explanation is that they may face fewer other expenses for necessities such as housing or transportation. The availability of other food assistance is unlikely to be an explanation for their higher

food security, as poor elderly households are less likely than other low-income households to participate in food assistance programs.

2. Working Poor Households: Food Security, Food Expenditure, and the Use of Other Food Assistance Programs

How food secure are working poor households? We find that:

- Between 56 and 63 percent of working poor households have enough food of the right kinds.
- Between 21 and 36 percent of working poor households have enough food, but not of the kinds they want.
- Between 7 and 14 percent of working poor households sometimes do not have enough to eat.
- Between 1 and 2 percent of working poor households often do not have enough to eat.
- About 95 percent of working poor households that reported not having enough food did not have enough money or food vouchers to buy more.

Working poor households are less food secure than poor elderly households. We do not have conclusive evidence on whether working poor households are more or less food secure than other low-income households. The majority of evidence suggests that the working poor are more food secure, but only slightly so. While data on working poor households in the SIPP Well-Being Module show that they are slightly less food sufficient than all low-income households, they are *less* likely than other low-income households to go days without food or money to buy food. And data in the CPS, show that working poor households are slightly more food sufficient than other low-income households. Moreover, most of the other indicators of food insecurity in the CPS also suggest that working poor households are slightly more food secure than other low-income households.

The greater food security of working poor households is somewhat surprising, since they spend about \$1 per person per week *less* than other low-income households on food. Possible explanations

for this greater food security include greater access to in-kind food assistance programs, the ability to buy food more cheaply (perhaps because they can buy in larger quantities), and a need for smaller amounts of food per person (perhaps because they are more likely to have children in the household).

3. Differences Between the Food Security of FSP Participants and Low-Income Nonparticipants

Participants are much less food secure than nonparticipants according to every measure of food insecurity and each data source. This suggests that food insecurity and the need for food stamps is an important determinant of FSP participation. The negative impact of food security on the decision to participate in the FSP outweighs any positive impact of FSP participation on the household's food security.

Compared with nonparticipants, participants spend much less (about \$6 per week) on food per person, even when including purchases made with food stamps. This can be partially explained by the fact that households that participate in the FSP have lower incomes per person in the household and hence less to spend on food per person. But even among households with similar incomes, participants spend less per person on food than nonparticipants, perhaps because they are able to purchase food in larger quantities or because they have larger expenses for other necessities.

4. Can Differences in Food Security Explain the Low FSP Participation by the Poor Elderly and Working Poor?

The low participation rates of the poor elderly can be explained, at least partially, by greater food security. Because they are able to spend more on food, they may have less of a need for food stamps.

A lack of need for food stamps is unlikely to be an important reason for nonparticipation by the working poor, although it may be a contributing factor. The working poor are only slightly more food secure than other groups. And between 7 and 13 percent of working poor nonparticipants reported not having enough to eat. This suggests that informational problems or high costs of participating may be more important explanations for low participation by the working poor.

V. THE DYNAMICS OF FSP PARTICIPATION

In this chapter, we examine the dynamics of FSP participation of the working poor and poor elderly.¹ In previous chapters, we examined the FSP participation of the working poor and poor elderly at one point of time. In this chapter, we examine the behavior of the working poor and poor elderly over time, comparing their movements on and off the FSP with those of other people.

We have five main goals for our analysis:

1. To describe the patterns over time of FSP participation and eligibility of the working poor and poor elderly and to compare them with the patterns of FSP participation and eligibility of other people.
2. To compare the length of FSP participation spells of the working poor and poor elderly with the length of FSP participation spells of other FSP participants.
3. To compare the rate of entry into and exit from the FSP of the working poor and poor elderly with the entry and exit rates of other people.
4. To examine the events that “trigger” *entry* into the FSP by the working poor and poor elderly and to investigate whether, compared with other people, different events trigger entry into the FSP by the working poor and poor elderly.
5. To examine the events that “trigger” *exit* from the FSP by the working poor and poor elderly and to investigate whether, compared with other people, different events trigger exit from the FSP by the working poor and poor elderly.

The analysis in this chapter is based on SIPP data from October 1989 to August 1993. Because the SIPP is a panel survey, that is, the same households are interviewed regularly over a period of time, we can examine people’s behavior over time.

¹Most of the data analysis for this chapter was conducted by Philip Gleason and Peter Schochet. For more details on their analysis of the dynamics of FSP participation among the full population, see Gleason, Schochet, and Moffitt, memorandum to FCS project officer, Christine Kissmer, July 12, 1996.

The chapter is organized as follows. Section A describes the data used in this analysis. Section B provides some descriptive statistics on the patterns over time of FSP participation and eligibility of the working poor and poor elderly. Section C compares the length of FSP participation spells of the working poor and poor elderly with the length of FSP participation spells of other people, and examines differences across subgroups in rates of entry into and exit from the FSP. Section D presents an analysis of events that trigger entry into the FSP, and Section E presents a similar analysis of the events that trigger exit from the FSP. We summarize our findings from this chapter in Section F.

A. DESCRIPTION OF THE DATA

This section describes the data used for the analysis in this chapter. It also discusses some issues related to the data including the unit of analysis, the definitions of FSP participation and FSP eligibility, and the definitions of our subgroups.

1. The SIPP Panels

The analysis in this chapter uses the 1990 and 1991 SIPP panels. In SIPP, the same persons are interviewed eight times, at four-month intervals, yielding 32 months of data on each person. The first interviews for the 1990 panel occurred in February 1990. The first interviews for the 1991 panel occurred a year later in February 1991. Together, the panels include about 74,500 people. At each interview, respondents are asked about the preceding four months. Hence, the reference period for the 1990 panel is October 1989 to August 1992, and the reference period for the 1991 panel is October 1990 to August 1993.²

²Chapter III, Section A, provides more details about SIPP.

2. Unit of Analysis

The unit of analysis in this chapter is the *person* rather than the household. The person is the more appropriate unit of analysis in panel data because changes in household composition make it conceptually difficult to define a single household over time. For example, if two SIPP sample members get married and move in together, should the married couple be defined as a new household or as a continuation of the two old ones? We avoid this problem by analyzing the behavior of the person rather than the household.

3. FSP Participation, FSP Eligibility, and Subgroup Definitions

We define a person as a “FSP participant” if he or she reports receiving food stamps that month. We also follow Burstein’s (1993) procedure of “closing up” one month gaps in FSP participation by assuming that sample members received food stamps in a given month if they reported receiving food stamps in both the previous and subsequent month. We assume that one-month gaps are errors in reporting rather than actual gaps in participation. We also follow Burstein and assume that people who leave the sample (because they die, move abroad, are institutionalized, or join the military, for example) do not participate in the FSP.

We determine FSP eligibility for each household in the sample using procedures similar to those used in determining FSP eligibility for the January 1992 SIPP data, described in Chapter III, with three important differences. First, as information on expenses needed to calculate net income is only available from the SIPP program eligibility modules administered in waves 4 and 7 of the panel and hence is not available for every month of the panel, net income is imputed using gross income and other household characteristics available from SIPP.³ Second, as information on assets is also only available

³The imputation is based on a model of net income that has gross income and other household characteristics as independent variables. The model was estimated using SIPP data for January 1992, which includes data on expenses.

in waves 4 and 7 of the panel, we extrapolate each person's assets from the months in which the data are available to the other months, assuming a linear relationship. Third, eligibility is based on the census household rather than an approximation of the FSP unit.

When interpreting the results in this chapter, it is important to remember that we only simulate eligibility, and this simulation is subject to error. One indication of this error is that we simulate as ineligible for food stamps some people that report receiving food stamps. (These people are often referred to as *seemingly ineligible*). These people make up less than 2 percent of the whole sample but between 20 and 25 percent of all participants. The proportion of seemingly ineligible in a sample of persons who are entering the FSP each month is 42 percent. We attribute this high error rate to FSP entrants being more likely to have experienced recent changes in income, assets, and household composition in the month they enter. Errors in our eligibility determination will occur if the timing of these changes is not reported or imputed accurately.

Because the person rather than the household is the unit of analysis, we define subgroups in two ways. First, we define subgroups according to the characteristics of the person's *household*: persons in households with earnings and persons in households that contain an elderly person. Second, we use a more restrictive definition based on the characteristics of the *person*: persons with earnings and elderly persons. We use both definitions in most of our analyses.

B. PATTERNS OF FSP PARTICIPATION AND ELIGIBILITY OVER TIME

This section provides some summary statistics on the patterns of FSP participation and eligibility of the working poor and poor elderly.

1. FSP Take-Up Rates

A useful way to summarize FSP participation and eligibility in panel data is to calculate the number of *person-months* of FSP participation and eligibility. Person-months are calculated by summing the

number of months of participation (or eligibility) for each person and then summing over all persons. The take-up rate is the number of person-months of FSP participation as a percentage of the number of person-months of FSP eligibility.

The take-up rates for all persons in the sample and for our subgroups are presented in Table V.1, together with the percentage of all person-months in which persons participated in the program or were FSP eligible. For consistency with our analysis in Chapter III and IV, we include in our count of participation only those person-months in which the person reported receiving food stamps *and* was determined to be FSP eligible.

For the sample as whole, a person was FSP eligible in about 12 percent of all person-months and participated in the FSP in about 6 percent of all person-months. Hence, the take-up rate is just under one-half. As there is evidence of underreporting in SIPP, we expect that this is an underestimate of the true take-up rate (just as the participation rates calculated in Chapters III and IV are underestimates of the true participation rates).

Consistent with our findings in earlier chapters, the working poor have lower take-up rates than other people. And the poor elderly have even lower take-up rates. People in households with earnings participated in about 38 percent of the person-months in which they were FSP-eligible. The take-up rate is only 30 percent for people in elderly households. The take-up rates for persons with earnings and elderly persons are even lower. This suggests that the factors that discourage households with earnings and elderly households from participating are even more important in households that contain *only* people with earnings or elderly people.

2. FSP Participation and Eligibility Rates Over Varying Observation Periods

Another way to summarize our panel data is to examine the proportion of people who are eligible and who participate in the FSP over different observation periods. In earlier chapters, we focused on

TABLE V.1
FSP TAKE-UP RATES

| Subgroup | Percent of Person-Months in Which Person: | | |
|-------------------------------------|---|------------------|--------------|
| | Participated in the FSP ^a | Was FSP Eligible | Take-Up Rate |
| Persons in Households With Earnings | 2.7 | 7.1 | 37.9 |
| Persons With Earnings | 1.3 | 4.8 | 27.8 |
| Persons in Elderly Households | 6.1 | 20.5 | 29.8 |
| Elderly Persons | 3.4 | 14.9 | 23.0 |
| All Persons | 5.9 | 12.2 | 48.0 |

SOURCE: 1990 and 1991 SIPP panels

NOTES: The sample consists of 2,381,184 person-months.

^aIncludes only person-months in which the person participated and was simulated as FSP-eligible

an observation period of one month. In this section, we examine FSP participation and eligibility rates over longer observation periods.

Table V.2 presents the percentage of all people who participate in the FSP and the percentage of all people who are eligible for food stamps over four time-periods: (1) in the first month of the panel, (2) at any time during the first six months of the panel, (3) at any time in the first year of the panel, and (4) at any time in the 32-month panel. As expected, the proportion of people who participate in the FSP and the proportion who are eligible for the FSP both increase with the length of the observation period.

An interesting finding from Table V.2 is that differences between our subgroups in the rates of FSP eligibility and participation are smaller when the observation period is longer. The FSP-eligibility rate for people in households with earnings is about 52 percent of the eligibility rate for all people in a one-month observation period (the first month of the panel), but it is about 77 percent of the eligibility rate for all people in a four-year observation period (the complete panel). Conversely, the FSP-eligibility rate for people in elderly households is about 21 percent higher than the eligibility rate for all people in a one-month observation period, but it is only about 7 percent higher in a four-year observation period (the complete panel). Similar patterns emerge when we look at eligibility rates for people with earnings and elderly people, and when we look at participation rates for each subgroup. These findings suggest that, compared with all people in the sample, people in households with earnings and people with earnings are *more* likely to experience changes in their FSP eligibility and participation, and people in elderly households and elderly people are *less* likely to experience changes in their FSP eligibility and participation.

TABLE V.2

PARTICIPATION AND ELIGIBILITY RATES OVER DIFFERENT OBSERVATION PERIODS

| Subgroup | Observation Period: Panel Months | | | |
|---|----------------------------------|--------|---------|---------|
| | 1 | 1 to 6 | 1 to 12 | 1 to 32 |
| Percent Eligible for the FSP | | | | |
| Persons in Households With Earnings | 6.4 | 9.6 | 11.9 | 17.3 |
| Persons With Earnings | 4.0 | 6.7 | 8.8 | 13.7 |
| Persons in Elderly Households | 15.0 | 17.0 | 18.8 | 23.9 |
| Elderly Persons | 15.8 | 17.4 | 18.9 | 23.4 |
| All Persons | 12.4 | 15.3 | 17.4 | 22.4 |
| Percent Participating in the FSP | | | | |
| Persons in Households With Earnings | 3.5 | 4.8 | 5.8 | 8.8 |
| Persons With Earnings | 1.4 | 2.2 | 2.9 | 5.0 |
| Persons in Elderly Households | 4.4 | 5.4 | 6.1 | 8.3 |
| Elderly Persons | 3.6 | 4.2 | 4.6 | 5.8 |
| All Persons | 6.8 | 8.2 | 9.3 | 12.3 |

SOURCE: 1990 and 1991 SIPP panels

NOTE: The sample contains 74,412 people.

C. LENGTH OF FSP PARTICIPATION SPELLS AND RATES OF ENTRY INTO AND EXIT FROM THE FSP

This section examines both the length of FSP participation spells for our subgroups and differences across subgroups in the rates of entry into and exit from the FSP.

1. Length of FSP Participation Spells

We examine the time spent receiving food stamps using a sample of participation spells that began during our sample period.⁴ We do not include in our sample participation spells that began before our sample period (left-censored spells) because we do not know when they began. The sample consists of one observation for each person-spell. Hence, if a person has two spells of FSP participation in the sample period, that person will have two observations in the sample.

We analyze the data by constructing life-tables. For each month that a participation spell lasts, a life-table contains four pieces of information: (1) the number of spells in the sample lasting at least that long, (2) the number of spells ending in the month, (3) the hazard rate--the probability that a spell will end in the month, given that it has lasted at least that many months, and (4) the survivor rate--the unconditional probability that a spell will last at least that number of months. Table V.3 presents summary statistics from the life-tables for the whole sample and for the subgroups. The median spell length is determined by the number of months in which the survivor rate drops below 50 percent. We derive the probability that a person would receive food stamps for at least 4, 8, or 12 months by subtracting the survivor rate from one, and the probability that a person would receive food stamps for

⁴We include only spells that began on or after the fifth month of the panel. We exclude the first wave (four months) so that we can directly compare our results with Burstein, who excluded the first wave of the panel because of data problems.

TABLE V.3

LENGTH OF FSP PARTICIPATION, BY SUBGROUP

| Subgroup | Unweighted Sample Size | Median Spell Length (Months) | Percent Receiving Food Stamps for 4 Months or Fewer | Percent Receiving Food Stamps for 8 Months or Fewer | Percent Receiving Food Stamps for 12 Months or Fewer | Percent Receiving Food Stamps for More Than 24 Months |
|-----------------------|---------------------------|------------------------------------|---|---|--|--|
| Persons in Households | | | | | | |
| With Earnings | 3,472 | 8 | 36.7 | 54.2 | 64.3 | 25.3 |
| Without Earnings | 2,135 | 13 | 26.1 | 40.2 | 49.2 | 36.4 |
| Persons | | | | | | |
| With Earnings | 1,025 | 6 | 43.1 | 62.7 | 73.1 | 19.8 |
| Without Earnings | 4,582 | 11 | 30.1 | 45.4 | 55.0 | 32.0 |
| Persons in | | | | | | |
| Elderly Households | 815 | 11 | 33.0 | 43.8 | 56.7 | 28.1 |
| Nonelderly Households | 4,792 | 9 | 32.6 | 49.7 | 58.7 | 29.9 |
| Elderly Persons | 382 | 12 | 33.6 | 42.0 | 58.1 | 25.4 |
| Nonelderly Persons | 5,225 | 9 | 32.6 | 49.3 | 58.4 | 30.0 |
| All Persons | 5,607 | 9 | 32.7 | 48.8 | 58.5 | 29.6 |

SOURCE: 1991 and 1992 SIPP panels

NOTE: Estimates are based on all nonleft-censored spells that began during or after the fifth panel month.

more than 24 months directly from the survivor rate.⁵

Overall, the median length of time receiving food stamps is 9 months. About 33 percent of spells last four months or less, and about 30 percent last more than two years. Our estimate of the median spell length is about 50 percent longer than Burstein's (1993) estimate of 6 months for spells in SIPP data from the mid-1980s. The median in our sample is higher because, compared with the 1980s, many fewer spells in the 1990s lasted less than 4 months (33 percent compared with 41 percent), and many more spells lasted more than two years (30 percent compared with 20 percent).

People in households with earnings are more likely than people in households without earnings to receive food stamps for shorter periods of time.⁶ The median spell length for people in households with earnings is 8 months, compared with 13 months for people in households without earnings. The distribution of spells for people in households with earnings is quite different from the spell distribution for people in households without earnings. Compared with people in households without earnings, a higher percentage of people in households with earnings receives food stamps for 4 months or less (37 percent compared with 26 percent), a higher percentage receives food stamps for 12 months or less (64 percent compared with 49 percent), and a lower percentage receives food stamps for more than 24 months (25 percent compared with 36 percent). People with earnings have even shorter spells: the median spell length for people with earnings is 6 months.

The distribution of participation spells of people in elderly households is quite similar to the distribution of participation spells of people in nonelderly households. Examining the tails of the

⁵Estimating the mean of the spell distribution when some spells last beyond the end of the sample period (are right-censored) requires assumptions about the shape of the distribution. As different assumptions can lead to very different estimates, we do not present means of spell lengths in this report.

⁶The subgroups are defined by the characteristic of the household (person) in the month the spell begins.

distribution only would suggest that people in elderly households have slightly *shorter* FSP participation spells than people in nonelderly households. People in elderly households are slightly *more* likely than people in nonelderly households to participate for short periods of time (33.0 percent of people in elderly households receive food stamps for four months or less, compared with 32.6 percent of people in nonelderly households.) And people in elderly households are slightly *less* likely to receive food stamps for very long spells (28.1 percent of people in elderly households receives food stamps for 24 months or longer, compared with 29.9 percent of people in nonelderly households.)⁷ However, the middle of the distributions show that people in elderly households are much *less* likely than people in nonelderly households to receive food stamps for moderately short periods of four to eight months. About 44 percent of people in elderly households receive food stamps for less than eight months, compared with 50 percent of people in nonelderly households. As a result, the median spell length of people in elderly households is about two months *longer* than the median spell length of people who are in nonelderly households.

The differences in the FSP participation spell distributions between elderly and nonelderly people are similar to those described above. Compared to nonelderly people, elderly people are more likely to receive food stamps for short periods of time and less likely to receive food stamps for a very long time, but are much less likely to receive food stamps for moderately short spells of four to eight months. The median spell length for elderly persons is, as a result, three months longer than the median spell length for nonelderly persons.

These differences in the spell lengths of our subgroups are consistent with the fact that the certification periods tend to be longer than average for elderly households and shorter than average for

⁷Although Burstein's (1993) results are not directly comparable because her elderly subgroup included people in households with disabled persons, she found that people in households that contain elderly or disabled people were *more* likely to spend 24 months or more on food stamps.

households with earnings. Compared with 34 percent of all households, about 10 percent of elderly households and 46 percent of households with earnings have certification periods of 6 months or less (Smolkin 1995). People may be more likely to leave the program at the end of their certification period for two reasons: (1) they may be unwilling to go through the recertification process or (2) they may be found ineligible at recertification.

2. Rates of Entry Into the FSP

In this section, we discuss the probability that a person in each subgroup will enter the FSP. We use a sample of person-months, one observation for each month each person is “at risk” of entering the FSP.⁸ A person is considered as “at-risk” if they were not receiving food stamps in the previous two months.⁹

Table V.4 presents our entry-rate estimates. The top panel presents entry rates for all “at risk” people in the sample month; the bottom panel presents entry rates only for people who we determined were FSP eligible in the sample month. The percentages of FSP entrants differs slightly between the top and bottom panel because the top panel includes people who enter the FSP even though we simulate that they are ineligible (the seemingly ineligibles), while by definition, these people are excluded from the bottom panel. To be consistent with our trigger analysis, the subgroups are defined according to the characteristic of the person four months previously.

⁸We include only months 10 to 32 of the panel for this analysis to be consistent with our entry trigger analysis.

⁹We required the person to be not receiving food stamps for two months to be consistent with our assumption of closing up one-month gaps in participation.

TABLE V.4

PROBABILITY OF ENTERING THE FSP IN A GIVEN MONTH, BY SUBGROUP

| Subgroup | Percent of Population | Percent Entering the FSP in the Month (FSP Entry Rate) | Percent of FSP Entrants |
|---|-----------------------|--|-------------------------|
| All Persons | | | |
| Persons in Households With Earnings | 84.5 | 0.27 | 76.2 |
| Persons with Earnings | 50.4 | 0.16 | 26.9 |
| Persons in Elderly Households | 23.5 | 0.19 | 14.9 |
| Elderly Persons | 17.1 | 0.11 | 6.2 |
| All Persons | 100.0 | 0.30 | 100.0 |
| Persons Eligible in Sample Month | | | |
| Persons in Households With Earnings | 55.1 | 3.24 | 68.2 |
| Persons with Earnings | 24.8 | 2.54 | 24.2 |
| Persons in Elderly Households | 37.2 | 1.01 | 14.4 |
| Elderly Persons | 29.1 | 0.66 | 7.4 |
| All Persons | 100.0 | 2.61 | 100.0 |

SOURCE: 1990 and 1991 SIPP panels

NOTE: The sample size for the top panel is 1,532,018 person-months. The sample size for the bottom panel is 101,291 person-months. The sample includes all sample members in every month between 10 and 32 in which they had not participated in the FSP in the previous two months.

Overall, we estimate an entry rate of 0.3 percent--for every 1,000 people who did not receive food stamps in the previous two months, three people enter the FSP in a given month. The entry rate is so low because the sample includes people of all income levels. Not surprisingly, the entry rate is much higher among people who were eligible in the sample month--nearly 3 percent.

Compared with the full sample of people, people in households with earnings are slightly less likely to enter the FSP (0.27 percent compared with 0.30 percent). The entry rate of people with earnings is even lower, at just 0.16 percent. Thus, while about 85 percent of the people who did not receive food stamps in the previous two months have household earnings, only between 68 and 76 percent of FSP entrants have household earnings. People with earnings comprise about one-half of the people who did not receive food stamps in the previous month, but only one-quarter of people who enter the FSP.

The lower entry rate of people in households with earnings and people with earnings is partly a result of the fact that these people are much less likely to be eligible for food stamps. Once we restrict the sample to people who we simulate as eligible to enter the FSP in the sample month, the entry rates for people in households with earnings and people with earnings increase substantially and are no longer much lower than the entry rates for the whole sample of FSP-eligible persons. In fact, we estimate that the entry rate for FSP-eligible people in households with earnings is even higher than for all FSP-eligible people. However, given the high error rate for entrants in our eligibility determination, we are reluctant to make too much of this result.

People in elderly households and elderly people are less likely than persons in the sample as a whole to enter the FSP, whether or not we restrict the sample to those who are FSP eligible. Compared with an entry rate of 0.30 percent for all people, people in elderly households have an entry rate of only 0.19 percent, and elderly people have an entry rate of only 0.11 percent. While the entry rates are

higher among people in elderly households who are FSP eligible, the entry rate is still lower than for all FSP-eligible people.

3. Rates of Exit From the FSP

In this section, we discuss the probability that a person who is on food stamps will leave the program--the exit rate. This analysis is directly related to the analysis of the length of FSP participation spells because a lower exit rate implies a longer participation spell. Table V.5 presents the exit rate for each of our subgroups. The sample for these estimates consists only of people who were receiving food stamps in the previous month.¹⁰ To be consistent with our exit trigger analysis, the characteristics of the subgroups are defined according to the person's characteristics three months previously. The top panel of the table presents exit rates for all people who were receiving food stamps in the previous month. The bottom panel presents exit rates for those people who were receiving food stamps in the previous month and are still eligible to participate in the program in the sample month. Hence, in the bottom panel we exclude people who *have* to leave the program because they have become ineligible. We estimate that just less than half of the people who leave the FSP are still eligible for the program.

The exit rate for all people who are at risk of leaving the FSP is 3.95 percent--out of every 100 participants, about 4 will leave in the next month. The exit rate for those who remain eligible for the FSP is lower (2.38 percent). Thus for every 100 FSP participants who are eligible to remain on the program for at least another month, 2 or 3 will leave in the next month.

People in households with earnings and people with earnings are more likely than other people to leave the FSP. The exit rate for people in households with earnings is over 6 percent, and the exit rate for people with earnings is nearly 8 percent. One reason both people in households with earnings and

¹⁰We include only months 6 to 28 of the panel in this analysis to be consistent with our exit trigger analysis.

TABLE V.5

PROBABILITY OF EXITING THE FSP IN A GIVEN MONTH, BY SUBGROUP

| Subgroup | Percent of Population | Percent Exiting the FSP in the Month (FSP Exit Rate) | Percent of FSP Exiters |
|---|-----------------------|--|------------------------|
| All Persons | | | |
| Persons in Households With Earnings | 42.8 | 6.13 | 66.4 |
| Persons with Earnings | 11.1 | 7.95 | 22.4 |
| Persons in Elderly Households | 15.4 | 3.52 | 13.7 |
| Elderly Persons | 8.9 | 2.78 | 6.2 |
| All Persons | 100.0 | 3.95 | 100.0 |
| Persons Eligible in Sample Month | | | |
| Persons in Households With Earnings | 33.1 | 3.92 | 54.5 |
| Persons with Earnings | 9.2 | 4.73 | 18.2 |
| Persons in Elderly Households | 14.9 | 2.26 | 14.1 |
| Elderly Persons | 9.4 | 1.88 | 7.4 |
| All Persons | 100.0 | 2.38 | 100.0 |

SOURCE: 1990 and 1991 SIPP panels

NOTE: The sample size for the top panel is 127,294 person-months. The sample size for the bottom panel is 100,152 person-months. The sample includes all sample members in months 6 to 28 who participated in the FSP in the previous month and who were in the sample four months previously.

people with earnings are more likely to leave is that they are more likely to be ineligible for food stamps in the sample month. People in households with earnings make up 43 percent of the sample of people who participated in the previous month, but they make up only 33 percent of the sample of people who participated in the previous month and who are FSP eligible in the sample month. However, this is not the only explanation. Even if we limit the sample to those people who are still eligible, people in households with earnings and people with earnings are more likely to leave the program. Of all people who leave and are still eligible for food stamps, over half are from households with earnings. The relatively high exit rate of these groups with earnings is consistent with their shorter participation spells. Hence, explanations of low FSP participation by the working poor must focus on both factors that discourage them from entering the FSP, but also, and maybe more importantly, factors that motivate them to leave the FSP when they are still eligible to receive benefits.

In contrast to people in households with earnings and people with earnings, people in elderly households and elderly people are *less* likely to leave the program once they are receiving benefits. The exit rate for people in elderly households is 3.52 percent, and the exit rate for elderly people is 2.78 percent, compared with 3.95 percent for the whole sample. For elderly people (though not for people in elderly households), this finding can be partially explained by the fact that they are less likely to be ineligible for food stamps in the sample month. However, even among people who are still eligible for food stamps, people in elderly households and elderly people are less likely than other people to leave the program. The relatively low exit rate of these elderly subgroups is consistent with their longer participation spells. Thus, the reason for the low participation of the poor elderly is not that they are leaving the FSP at a higher rate than other people, but that they are not entering the FSP at the same rate as other FSP-eligible people.

D. EVENTS THAT TRIGGER ENTRY INTO THE FSP

The differences between the entry rates of our subgroups begs the question: what events or circumstances lead some people to apply for and receive food stamps? To answer this question, we examine the events that occurred in a person's household during the four months before they entered the FSP to see whether there was an event that may have "triggered" the person to start receiving food stamps. We compare the events that trigger entry into the program by all people, with the events that trigger entry by the working poor and poor elderly.

We also conducted each of our analyses for the subsample of people who we simulated as FSP-eligible in the sample month. However, we do not present these analyses in this report because of the high proportion of FSP entrants who we simulate as FSP-ineligible and because the results are not markedly different for these subsamples.

Our analysis uses a sample of person-months in which the person is at risk of entering the FSP, that is, did not receive food stamps in the previous two months. We defined an event as a "trigger" if it occurred during a four-month observation period that preceded the month the person was at risk. The subgroup is defined by the person's characteristics at the beginning of this window.

1. Potential Entry Trigger Events

We identified nine types of events that may trigger entry into the FSP and that can be observed using SIPP data.¹¹ Our categories of trigger events are based on those developed by Burstein (1993) but differ from hers in two main ways. First, our categories are defined to be mutually exclusive--a person can fall into only one category. Second, we allow more of our categories to include multiple

¹¹We experimented with narrower categories of trigger events. However, we found that the number of people in the sample that experienced the events in these narrower categories was small, and the additional detail did not yield much additional information.

events. This is because the occurrence of more than one trigger event is likely to have a bigger impact on the probability of a person entering the FSP than the occurrence of only one event.

We consider trigger events, such as a loss in earnings, that lead to decreases in the resources available to the household. We also consider trigger events, such as the addition of an infant in the household, that represent an increase in the household's need for food stamps. We also explore whether more information about the program gained through applying for public assistance may act as a trigger event.

The trigger events can be categorized into four broad groups:

- ***A Decrease in Household Income Without a Change in Household Composition.***
We define a “decrease in income” as a fall in household income of 20 percent or more from one month to the next during the window of observation.¹² (We do not include in this group decreases in income because someone with income left the household.) We further categorize the trigger events by the cause of the income decrease. If the household experienced a fall in more than one type of income, we categorize the household according to the cause of the largest income decrease. There are two trigger events in this group:
 - A decrease in the earnings of one or more household members.
 - A decrease in the unearned income of one or more household members. This includes a decrease (perhaps to zero) in unemployment insurance, Social Security, AFDC, or child support.
- ***A Change in Household Composition With No Decrease in Household Income.***
This group includes any change in household composition that is not accompanied by a decrease in household income of 20 percent or more. There are two trigger events in this group:
 - The addition of new household member without income. This includes the birth of an infant, an elderly parent joining the household, or a new spouse.

¹²We experimented with different definitions of an income decrease. This definition was the best predictor of whether someone would enter the FSP.

- Other household composition changes. These include the addition of a new member *with* income, a decrease in household size, or a change in the people in the household that does not affect the overall size. These household composition changes may lead to a change in the desire to receive food stamps if the new household member has attitudes toward food stamps that differ from those of the person who left the household. They could also lead to changes in the need for food stamps if they affect the household's medical, dependent-care, or shelter expenses, or its access to other food assistance.

- ***A Decrease in Household Income With A Change in Household Composition.*** This group includes multiple events that affect both the household's income and its composition. These may be related events, such as the departure of a working spouse, or unrelated events that may coincidentally occur at about the same time. Four trigger events are in this group:
 - Departure of a household member with income *without* a decrease in the income of the remaining household members.
 - Departure of a household member with income *with* a decrease in the income of the remaining household members.
 - New household member without income and a decrease in the income of the original household members.
 - Other household composition changes and a decrease in the income of the original household members.

- ***Receipt of New Public Assistance With No Other Major Trigger Event.*** This group includes a household that has not experienced any of the above trigger events but has started receiving public assistance (AFDC, GA, or SSI).

This list by no means exhausts the events that could trigger entry into the FSP. If more data were available, we would also like to include other trigger events. These would include measures of changes in the household's needs, such as changes in medical expenses, medically-required changes in diet, rent increases, or a new need for paid dependent care. We would also like to include events that may increase the household's awareness of the FSP, such as contact with an outreach worker (for example, after a hospital stay), friends or relatives beginning to get food stamps, or being exposed to media

announcements about food stamps. Decreases in unreported income may also trigger entry into the program.

2. Analysis of Entry Trigger Events

The distribution of entry trigger events for all persons in the sample is shown in Table V.6. The table provides three pieces of information for each event. First, it gives an estimate of the prevalence of the event--the percentage of the population at risk of entering the FSP who experienced the event. Second, it gives the probability that a person who has experienced the event will enter the program. Third, it gives the percentage of FSP entrants who experienced each event.

The main findings from our analysis are:

- Less than half of the sample (41 percent) experienced any of the trigger events during the four-month observation period.
- The most common trigger event experienced by the sample as a whole is a decrease in earnings without any change in household composition. This was experienced by 28 percent of the whole sample. The second most common trigger event was a decrease in unearned income.
- Experiencing a trigger event increases the likelihood of a person entering the FSP by nearly five-fold (0.58 percent compared with 0.12 percent).
- Experiencing more than one trigger event is a good predictor of a person entering the FSP. The entry rates for people who experienced more than one trigger event are much higher (between 1.07 and 1.30 percent) than those for people who experienced only one trigger event (between 0.24 and 0.67 percent).
- About three-quarters of FSP entrants experienced one or more of the trigger events. The remaining one-quarter entered the FSP without experiencing a trigger event.
- Nearly 70 percent of all FSP entrants experienced a decrease in income (either alone or with a household composition change) before entering the FSP. About 42 percent of all FSP entrants experienced only a decrease in earnings. About 19 percent of FSP entrants experienced both a decrease in income and a household composition change. A change in household composition and the receipt of new public assistance were much less important trigger events, affecting only 4 percent and 2 percent of FSP entrants, respectively.

TABLE V.6

DISTRIBUTION OF FSP ENTRY TRIGGER EVENTS: ALL PERSONS

| Trigger Event | Percent of Population Who Experienced the Event | Probability of Entering the FSP, Conditional on Experiencing the Event (FSP Entry Rate) | Percent of FSP Entrants Who Experienced the Event |
|---|---|---|---|
| Income Decrease Without a Change in Household Composition | | | |
| Decrease in earnings | 27.7 | 0.45 | 41.9 |
| Decrease in unearned income | 4.2 | 0.59 | 8.3 |
| Change in Household Composition Only | | | |
| New household member without income | 1.3 | 0.67 | 2.9 |
| Other household composition change | 1.8 | 0.24 | 1.5 |
| Income Decrease and a Household Composition Change | | | |
| Departure of household member with income only | 2.2 | 1.29 | 9.4 |
| Departure of household member with income and a decrease in the income of a household member | 0.9 | 1.08 | 3.3 |
| New household member without income and a decrease in the income of a household member | 1.0 | 1.30 | 4.3 |
| Other household composition change and a decrease in the income of the original household members | 0.6 | 1.07 | 2.2 |
| Receipt of New Public Assistance With No Other Major Trigger Event | 1.3 | 0.40 | 1.7 |
| Any of the Above Events | 40.9 | 0.58 | 75.5 |
| None of the Above Events | 59.1 | 0.12 | 24.5 |
| All | 100.0 | 0.30 | 100.0 |
| Sample Size | 1,532,018 | 1,532,018 | 4,596 |

SOURCE: 1990 and 1991 SIPP panels

NOTES: The sample includes all sample members in every month between 10 and 32 in which they had not participated in the FSP in the previous two months.

a. People in Households with Earnings

Are the events that trigger entry into the FSP by people in households with earnings different from those that trigger entry by other people? Table V.7 presents the distribution of trigger events for people in households with earnings.¹³ The table shows that FSP entrants in households with earnings are more likely than other FSP entrants to have experienced a trigger event. Theoretically, there are two possible explanations for this finding: (1) people in households with earnings are more likely to experience a trigger event, and/or (2) people in households with earnings are more likely than other people to enter the FSP after an event occurred. In fact, FSP entrants in households with earnings are more likely to have experienced a trigger event *only* because people in households with earnings are more likely to experience a trigger event. After experiencing a trigger event, people in households with earnings are *less* likely than other people to enter the FSP. This is probably because they have more resources to weather the impact of a trigger event. People in households with earnings are slightly more likely than other people to enter the FSP because of a decrease in earnings and slightly less likely to enter the FSP because of a decrease in unearned income or a change in household composition.

More specifically, our findings from Table V.7 are:

- People in households with earnings are more likely than other people to experience a trigger event. About 46 percent of people in households with earnings experienced at least one trigger event, compared with 41 percent in the full sample.
- People in households with earnings are more likely to experience a decrease in earnings. (The household may no longer have earnings by the time the person enters the FSP.) They are also slightly more likely than other people to experience a change in household composition. They are slightly less likely than other people to experience a decrease in unearned income.

¹³For brevity in this report, we only discuss the analysis of trigger events for people in households with earnings and people in elderly households. We also analyzed the distribution of trigger events for people with earnings and elderly people. The conclusions from those analyses were similar to the conclusions from the analyses of people in households with earnings and people in elderly households.

TABLE V.7

DISTRIBUTION OF FSP ENTRY TRIGGER EVENTS: PERSONS IN HOUSEHOLDS WITH EARNINGS

| Trigger Event | Percent of Population Who Experienced the Event | Probability of Entering the FSP, Conditional on Experiencing the Event (FSP Entry Rate) | Percent of FSP Entrants Who Experienced the Event |
|---|---|---|---|
| Income Decrease Without a Change in Household Composition | | | |
| Decrease in earnings | 32.0 | 0.42 | 50.0 |
| Decrease in unearned income | 2.7 | 0.50 | 5.0 |
| Change in Household Composition Only | | | |
| New household member without income | 1.4 | 0.47 | 2.4 |
| Other household composition change | 1.9 | 0.18 | 1.3 |
| Income Decrease and a Household Composition Change | | | |
| Departure of household member with income only | 2.4 | 1.22 | 10.8 |
| Departure of household member with income and a decrease in the income of a household member | 1.1 | 0.99 | 3.9 |
| New household member without income and a decrease in the income of a household member | 1.1 | 1.15 | 4.6 |
| Other household composition change and a decrease in the income of the original household members | 0.6 | 0.83 | 2.0 |
| Receipt of New Public Assistance With No Other Major Trigger Event | | | |
| | 1.4 | 0.34 | 1.8 |
| Any of the Above Events | 45.5 | 0.49 | 81.6 |
| None of the Above Events | 54.5 | 0.09 | 18.4 |
| All | 100.0 | 0.27 | 100.0 |
| Sample Size | 1,286,983 | 1,286,983 | 3,475 |

SOURCE: 1990 and 1991 SIPP panels

NOTES: The sample includes all sample members in every month between 10 and 32 in which they had not participated in the FSP in the previous two months.

- Given the occurrence of a trigger event, people in households with earnings are less likely to enter the FSP (0.49 percent compared with 0.58 percent). This is true for each trigger event. Thus, although people in households with earnings are more likely to experience a trigger event, they are less likely to enter after experiencing one.
- People in households with earnings are less likely to enter the FSP if no trigger event occurred (0.09 percent compared with 0.12 percent).
- Compared with all FSP entrants, a slightly higher percentage of FSP entrants in households with earnings experienced at least one trigger event (82 percent of FSP entrants in households with earnings experienced a trigger event compared with 76 percent of all FSP entrants).
- A decrease in earnings is even more likely to be associated with FSP entry among people in households with earnings than in the sample as a whole (50 percent compared with 42 percent). This is entirely due to the more frequent occurrence of a decrease in earnings of people in households with earnings. A decrease in unearned income or a household composition change is less likely to be associated with FSP entry among people in households with earnings.

We also found that people in households with earnings are more likely than other people to have recently experienced a change in their eligibility for food stamps. When the sample was restricted to people who we simulated as FSP eligible in the sample month, we found that only 57 percent of people in households with earnings were FSP eligible four months previously, compared with 72 percent of all people. This is consistent with our earlier findings that the FSP-eligibility rate of persons in households with earnings increased significantly when the observation period was lengthened.

b. People in Elderly Households

The distribution of trigger events for people in elderly households is shown in Table V.8. Our findings for people in elderly households are very different from those for people in households with earnings. People in elderly households are much less likely than other people to experience a trigger event. And they are much less likely to enter the FSP after experiencing a trigger event, suggesting that they are better able to weather the impact of a trigger event. Together these results imply that our

TABLE V.8

DISTRIBUTION OF FSP ENTRY TRIGGER EVENTS: PERSONS IN ELDERLY HOUSEHOLDS

| Trigger Event | Percent of Population Who Experienced the Event | Probability of Entering the FSP, Conditional on Experiencing the Event (FSP Entry Rate) | Percent of FSP Entrants Who Experienced the Event |
|---|---|---|---|
| Income Decrease Without a Change in Household Composition | | | |
| Decrease in earnings | 12.0 | 0.38 | 23.9 |
| Decrease in unearned income | 7.3 | 0.22 | 8.4 |
| Change in Household Composition Only | | | |
| New household member without income | 0.6 | 0.48 | 1.6 |
| Other household composition change | 1.4 | 0.23 | 1.7 |
| Income Decrease and a Household Composition Change | | | |
| Departure of household member with income only | 2.3 | 0.99 | 11.8 |
| Departure of household member with income and a decrease in the income of a household member | 0.7 | 0.76 | 2.9 |
| New household member without income and a decrease in the income of a household member | 0.2 | 0.21 | 0.3 |
| Other household composition change and a decrease in the income of the original household members | 0.3 | 0.64 | 1.0 |
| Receipt of New Public Assistance With No Other Major Trigger Event | 0.9 | 0.15 | 0.7 |
| Any of the Above Events | 25.6 | 0.39 | 52.2 |
| None of the Above Events | 74.4 | 0.12 | 47.8 |
| All | 100.0 | 0.19 | 100.0 |
| Sample Size | 368,364 | 368,364 | 700 |

SOURCE: 1990 and 1991 SIPP panels

NOTES: The sample includes all sample members in every month between 10 and 32 in which they had not participated in the FSP in the previous two months.

trigger events do not do a good job of explaining entry into the FSP by people in elderly households. Nearly half of all FSP entrants in elderly households had not experienced a trigger event. This suggests that other events, such as an increase in medical expenses or the acquisition of more information about food stamps, may lead people in elderly households to enter the FSP. The three events that were more important in explaining entry into the FSP for people in elderly households than for other people were: (1) the departure of a household member with income, (2) a decrease in unearned income, and (3) an “other” household composition change.

Specifically, our findings from Table V.8 are:

- Compared with all people, a much smaller proportion of people in elderly households experienced a trigger event. Only 26 percent of people in elderly households experienced a trigger event, compared with 41 percent of all people.
- People in elderly households are more likely than other people to experience a decrease in unearned income (such as Social Security or unemployment insurance) and the departure of a household member with income. They are much less likely to experience a decrease in household earnings.
- Given the occurrence of a trigger event, people in elderly households are even less likely than people in households with earnings to enter the FSP (0.39 percent compared with 0.49 percent for people in households with earnings and 0.58 percent for all people). The entry rate for each trigger event is lower for people in elderly households than for other people.
- If a trigger event does *not* occur, the likelihood of a person in an elderly household entering the FSP is about the same as the likelihood of other people entering the FSP.
- A much smaller proportion of FSP entrants in elderly households experienced a trigger event (52 percent compared with 76 percent for all people). This is because people in elderly households are both less likely to experience a trigger event to begin with and less likely to enter the program once they have experienced a trigger event.
- FSP entrants in elderly households are less likely than all entrants to have experienced a change in earnings (24 percent compared with 42 percent) and more likely to have experienced the departure of a household member with income, a decrease in unearned income, or an “other” household composition change.

We also found that people in elderly households are less likely than other people to have recently experienced a change in their eligibility for food stamps. When the sample was restricted to people who we simulated as FSP eligible in the sample month, we found that 83 percent of people in elderly households were FSP eligible four months previously, compared with 72 percent of all people. This is consistent with our earlier findings.

E. EVENTS THAT TRIGGER EXIT FROM THE FSP

What events lead FSP participants to leave the FSP? This section examines the events that may trigger people to leave the FSP and compares the exit triggers for people in our subgroups with the exit triggers for other FSP participants.

Our analysis uses a sample of persons-months in which the person is at risk of leaving the FSP, that is, received food stamps in the previous month.¹⁴ An event is counted as a trigger event if it occurred in one of the two months preceding the sample month, in the sample month, or in the month after the sample month. The rationale for including a month after the sample month is that the *anticipation* of an upcoming event may trigger exit from the program. The subgroups are defined by the person's characteristics at the beginning of this window.

1. Potential Exit Trigger Events

We identified nine types of events that may trigger exit from the FSP and that can be observed using the SIPP data. Again, our categories of trigger events are similar to Burstein's categories but differ in that they are mutually exclusive and focus on multiple events. To a large extent, the categories mirror our entry trigger events.

¹⁴We also required that the person was in the sample four months previously.

We consider trigger events that increase the resources available to the household (such as someone in the household gaining a job) and those that represent a decrease in the household's need for food stamps (such as someone without income leaving the household). Leaving the sample is also included as trigger event.

The trigger events can be categorized into four broad groups:

- ***An Increase in Household Income With No Change in Household Composition.***
We defined an "increase" in income as a rise in household income of 20 percent or more from one month to the next during the observation window. We do not include in this category increases in income because someone with income joined the household. There are two trigger events in this group:
 - An increase in the earnings of one or more household members.
 - An increase in the unearned income of one or more household members.

- ***A Change in Household Composition With No Increase in Household Income.***
This group includes any change in household composition that is not accompanied by an increase in household income of 20 percent or more. There are two trigger events in this group:
 - A household member without income leaving the household.
 - Other household composition changes.

- ***An Increase in Household Income With A Change in Household Composition.***
This category includes multiple events that affect both the household's income and its composition. Four trigger events are included in this group:
 - Arrival of a new household member with income and no increase in the income of the original household members.
 - Arrival of a new household member with income and an increase in the income of the original household members.
 - Departure of a household member without income and an increase in the income of the remaining household members.

- Other household composition changes and an increase in the income of the original household members.
- ***Person Left the Sample.*** A person left the sample if he or she died, was institutionalized, joined the military, moved out of the country, or was separated or divorced from a sample member. The exit rate for people who left our sample is 100 percent, by assumption.

As with the groups of entry trigger events, these groups exclude important events that may trigger exit from the program. These include problems receiving or using food stamps (or the EBT card), failure to attend recertification interviews, decreases in expenses, and the receipt of food assistance from other sources such as family members, charities, churches, or other government assistance. Increases in unreported income may also trigger exit from the program.

2. Analysis of Exit Trigger Events

The results of our analysis of exit trigger events for all people in the sample who received food stamps in the previous month are shown in Table V.9. Table V.9 is similar to the tables that presented our entry trigger analysis. Many of the findings from Table V.9 echo the findings from our entry trigger analysis:

- About half of the sample (49 percent) experienced at least one of the trigger events during the four-month trigger window.
- An increase in earnings with no change in household composition is the most common event experienced by FSP participants. It was experienced by 25 percent of all people. The second most common event was an increase in unearned income with no change in household composition.
- Experiencing a trigger event increases the likelihood of a person leaving the FSP by over three-fold (6.13 percent compared with 1.83 percent).
- Experiencing more than one trigger event is a good predictor of a person leaving the FSP. The exit rates for multiple trigger events range from 6 to 12 percent, compared with exit rates of 3 to 7 percent for one trigger event.

TABLE V.9
DISTRIBUTION OF FSP EXIT TRIGGER EVENTS: ALL PERSONS

| Trigger Event | Percent of Population Who Experienced the Event | Probability of Exiting the FSP, Conditional on Experiencing the Event (FSP Exit Rate) | Percent of Persons Who Leave the FSP Who Experienced the Event |
|--|--|--|---|
| Income Increase Without a Change in Household Composition | | | |
| Increase in earnings | 24.9 | 6.93 | 43.7 |
| Increase in unearned income | 11.3 | 4.03 | 11.5 |
| Change in Household Composition Only | | | |
| Person without income leaving household | 1.3 | 3.97 | 1.3 |
| Other household composition change | 3.9 | 3.25 | 3.2 |
| Income Increase and a Household Composition Change | | | |
| New household member with income only | 2.1 | 8.04 | 4.2 |
| New household member with income and an increase in the income of an original household member | 0.6 | 12.11 | 1.8 |
| Departure of a household member without income and an increase in the income of an original household member | 1.0 | 6.55 | 1.6 |
| Other household composition change and an increase in the income of an original household member | 3.9 | 6.45 | 6.4 |
| Person Left the Sample | 0.1 | 100.00 | 2.7 |
| Any of the Above Events | 49.1 | 6.13 | 76.4 |
| None of the Above Events | 50.9 | 1.83 | 23.6 |
| All | 100.0 | 3.95 | 100.0 |
| Sample Size | 127,294 | 127,294 | 5,028 |

SOURCE: 1990 and 1991 SIPP panels

NOTES: The sample includes all sample members in every month between 6 and 28 in which the person had received food stamps in the previous month and who was in the sample four months previously.

- The likelihood of a person leaving the FSP is the highest (12 percent) for people who experience both the departure of a household member without income and an increase in the income of remaining household members. However, less than 1 percent of FSP participants experiences these events.
- About 76 percent of all people who leave the FSP experienced one or more of the trigger events. The remaining 24 percent left the program without experiencing any of the exit trigger events.
- Nearly 70 percent of all persons who leave the FSP had recently experienced a decrease in income (either alone or with a household composition change). About 44 percent of all persons who leave the program had experienced only a decrease in earnings. About 14 percent of all persons who leave the program had experienced both a decrease in income and a household composition change.

a. People in Households with Earnings

We reported earlier in this chapter that persons in households with earnings are much more likely than other people to leave the FSP. Are the events that trigger people to leave the FSP different for people in households with earnings? To address this issue, we looked at the distribution of FSP exit triggers for all people in households with earnings (Table V.10). Table V.10 shows that people in households with earnings are much more likely than other people to experience a trigger event. They are especially more likely to experience an increase in earnings. And, if they experience a trigger event, people in households with earnings are much more likely than other people to leave the FSP. As a result, people in households with earnings who leave the FSP are more likely than other people who leave the program to have experienced a trigger event. An increase in earnings is more likely to be associated with an FSP exit by people in households with earnings than with an exit by other people.

More specifically, our findings from Table V.10 are:

- People in households with earnings are much more likely to experience a trigger event. About 66 percent of people in households with earnings experienced a trigger event, compared with 49 percent of all people.

TABLE V.10

DISTRIBUTION OF FSP EXIT TRIGGER EVENTS: PERSONS IN HOUSEHOLDS WITH EARNINGS

| Trigger Event | Percent of Population Who Experienced the Event | Probability of Exiting the FSP, Conditional on Experiencing the Event (FSP Exit Rate) | Percent of Persons Who Leave the FSP Who Experienced the Event |
|--|---|---|--|
| Income Increase Without a Change in Household Composition | | | |
| Increase in earnings | 42.4 | 7.25 | 50.1 |
| Increase in unearned income | 8.1 | 7.37 | 9.7 |
| Change in Household Composition Only | | | |
| Person without income leaving household | 1.8 | 4.89 | 1.5 |
| Other household composition change | 4.7 | 5.46 | 4.2 |
| Income Decrease and a Household Composition Change | | | |
| New household member with income only | 1.8 | 9.71 | 2.8 |
| New household member with income and an increase in the income of an original household member | 0.9 | 12.85 | 1.8 |
| Departure of a household member without income and an increase in the income of an original household member | 1.3 | 5.70 | 1.4 |
| Other household composition change and an increase in the income of an original household member | 5.7 | 7.53 | 7.0 |
| Person Left the Sample | 0.1 | 100.00 | 1.1 |
| Any of the Above Events | 66.2 | 7.29 | 79.4 |
| None of the Above Events | 33.3 | 3.79 | 20.6 |
| All | 100.0 | 6.13 | 100.0 |
| Sample Size | 53,941 | 53,941 | 3,307 |

SOURCE: 1990 and 1991 SIPP panels

NOTES: The sample includes all sample members in every month between 6 and 28 in which the person had received food stamps in the previous month and who was in the sample four months previously.

- Compared with other people, people in households with earnings are more likely to experience an increase in earnings and an “other” household composition change around the same time as an increase in the income of an original household member. They are less likely to experience an increase in unearned income.
- People in households with earnings are much more likely to leave the FSP. This is true whether they experienced a trigger event or not. For each trigger event (except for the departure of a household member without income with an increase in the income of a remaining household member), the exit rate is higher for people in households with earnings than it is for other people.
- The exit trigger events can explain a higher proportion of exits by people in households with earnings than for all people in the sample (79 percent compared with 76 percent).
- Compared with all people, a higher percentage of people in households with earnings leave the FSP because of an increase in earnings (50 percent compared with 44 percent) or a household composition change (6 percent compared with 5 percent). A lower percentage of people in households with earnings leave the FSP because of an increase in unearned income.

b. People in Elderly Households

We reported earlier that people in elderly households are less likely to leave the FSP than other people. Do the same events trigger exit by people in elderly households as trigger exit by other people? To address this question, Table V.11 presents our analysis of exit trigger events for people in elderly households. As we found when analyzing entry trigger events, the distribution of exit trigger events is very different for people in elderly households. They are much less likely than other people to experience any of our trigger events. But, as with people in households with earnings, people in elderly households are *more* likely to leave the FSP after experiencing a trigger event. However, because it is relatively rare for them to experience a trigger event, the overall exit rate for people in elderly households is lower than the exit rates of other people. Just as our entry trigger events did not do a good job in explaining why people in elderly households enter the program, our exit trigger events do not do a good job of explaining why people in elderly households leave the FSP. Nearly half of all

TABLE V.11

DISTRIBUTION OF FSP EXIT TRIGGER EVENTS: PERSONS IN ELDERLY HOUSEHOLDS

| Trigger Event | Percent of Population Who Experienced the Event | Probability of Exiting the FSP, Conditional on Experiencing the Event (FSP Exit Rate) | Percent of Persons Who Leave the FSP Who Experienced the Event |
|--|---|---|--|
| Income Increase Without a Change in Household Composition | | | |
| Increase in earnings | 9.9 | 8.01 | 8.0 |
| Increase in unearned income | 8.5 | 3.03 | 3.0 |
| Change in Household Composition Only | | | |
| Person without income leaving household | 1.1 | 2.78 | 0.9 |
| Other household composition change | 3.6 | 1.89 | 1.9 |
| Income Increase and a Household Composition Change | | | |
| New household member with income only | 1.1 | 10.14 | 3.2 |
| New household member with income and an increase in the income of an original household member | 0.4 | 3.12 | 0.4 |
| Departure of a household member without income and an increase in the income of an original household member | 0.8 | 4.62 | 1.1 |
| Other household composition change and an increase in the income of an original household member | 2.6 | 8.25 | 6.1 |
| Person Left the Sample | 0.3 | 100.00 | 8.9 |
| Any of the Above Events | 28.3 | 6.58 | 52.3 |
| None of the Above Events | 71.7 | 2.35 | 47.7 |
| All | 100.0 | 3.52 | 100.0 |
| Sample Size | 19,675 | 19,675 | 693 |

SOURCE: 1990 and 1991 SIPP panels

NOTES: The sample includes all sample members in every month between 6 and 28 in which the person had received food stamps in the previous month and who was in the sample four months previously.

people in elderly households who left the program had not experienced a trigger event. This suggests that other factors are important in the decision of people in elderly households to leave the FSP.

Specifically, our findings from Table V.11 are:

- A much smaller proportion of FSP participants in elderly households experienced a trigger event. Only 28 percent of people in elderly households experienced a trigger event, compared with 49 percent of the sample as a whole.
- A much smaller proportion of people in elderly households experienced an increase in earnings or unearned income (18 percent compared with 36 percent for all people).
- Given the occurrence of a trigger event, people in elderly households are *more* likely to leave the FSP than other people. The exit rates for people in elderly households are higher given (1) an increase in earnings only, (2) a new household member with income only, and (3) an “other” household composition change with an increase in the income of an original member.
- If no trigger event occurs, people in elderly households are still more likely to leave the FSP.
- Overall, people in elderly households have a lower exit rate, but only because a much smaller proportion of people in elderly households experienced any trigger event.
- The most common event experienced by people in elderly households who leave the FSP is “leaving the sample,” most probably because of death or institutionalization. The next most common event experienced by people in elderly households who leave the program is an increase in earnings only, but it is experienced by only 8 percent of the sample.
- Our exit triggers cannot explain much more than half of the exits from the FSP by all people in elderly households.

F. SUMMARY

The analyses discussed in this chapter suggest that the dynamics of FSP participation for the working poor and poor elderly are very different from each other and those of other groups. The working poor exhibit a high turnover in FSP participation. They frequently move on and off food stamps and typically receive food stamps for only short spells. In contrast, the poor elderly exhibit a low turnover in FSP participation. They are less likely than other people to start receiving food stamps,

but once on food stamps, they are less likely to leave the FSP. They typically receive food stamps for slightly longer spells than other people.

1. The Working Poor

The working poor experience many changes over time in their income and household composition. In particular, they are likely to experience changes in their earnings. As a result of these changes, people in households with earnings are more likely to experience frequent changes in their FSP eligibility and participation.

As people in households with earnings have higher incomes than average, they are less likely than other people to enter the FSP. However, if we restrict the sample to those people who are FSP eligible, people in households with earnings are not much less likely (and may be slightly more likely) than other people to enter the FSP. This is because they are more likely to experience the type of events that often trigger entry into the FSP, such as a decrease in household income. Thus, it is not surprising that a high proportion of FSP entrants in households with earnings enter the FSP after recently experiencing a decrease in income. People in households with earnings are, however, *less* likely than other people to enter the FSP after experiencing an income or household composition change. This is probably because they have the resources to better weather the impact of such a change.

People in households with earnings are more likely than other people to leave the FSP, even if we restrict the sample to those people who are eligible to remain on the program. Hence, the median spell on food stamps for people in households with earnings is five months shorter than the median food stamp spell for people in households without earnings. People in households with earnings are more likely than other people to leave the FSP because (1) they are more likely to experience the income and household composition changes that typically trigger people to leave the program and (2) they are more likely to leave the program after experiencing these changes.

2. The Poor Elderly

In contrast to working poor households, elderly households are very stable. Elderly households do not experience frequent changes in their income or household composition and hence do not experience frequent changes in their FSP eligibility or participation. They are slightly more likely than other people to experience changes in unearned income and a household member with income leaving the household.

People in elderly households are less likely to enter the FSP, even if we control for the fact that they are more likely than other people to be eligible for the program. People in elderly households are less likely than other people to enter the FSP for two reasons. First, they are much less likely to experience the changes in income or household composition that often trigger people to enter the FSP. Second, even if they *do* experience changes in income or household composition, people in elderly households are less likely to enter the FSP after experiencing the changes. This suggests that they, like people in households with earnings, are better able to weather the impacts of these events.

About half of the entries into the FSP by people in elderly households do not follow either a change in income or household composition. Thus, other events, such as gaining information about the FSP or a change in the need for food stamps, must be important in determining entry into the program by this group.

When they are on food stamps, people in elderly households are less likely to leave the FSP. This is true even if we restrict the sample to those who are eligible to remain on the program. Hence, people in elderly households tend to stay on the program for a little longer than other people. This is mainly because people in elderly households are more likely to stay on the program for more than 8 months and less likely to stay on the program between 4 and 8 months. This may reflect the longer FSP certification periods of many elderly households.

People in elderly households on food stamps are less likely than other people to leave the program because they are less likely to experience the income and household composition changes that often lead people to leave the program. If people in elderly households *do* experience an income or household composition change, they are *more* likely than other people to leave the FSP. However, about one-half of the exits from the FSP by people in elderly households are not associated with any change in income or household composition. This suggests that, as with entry into the FSP, other factors are motivating people in elderly households to leave the program.

VI. SUMMARY

This chapter summarizes the principal findings in this report and identifies the gaps remaining in our knowledge of the reasons for low participation in the FSP by the working poor and poor elderly.

A. CHARACTERISTICS OF THE WORKING POOR AND POOR ELDERLY RELATED TO FSP PARTICIPATION

This section describes some characteristics of the working poor and poor elderly that relate to FSP participation.

1. General Household Characteristics

Working poor and poor elderly households differ in their demographic composition. Relative to all FSP-eligible households, working poor households are larger, more likely to have children, and have a more educated reference person. In contrast, poor elderly households, relative to all FSP-eligible households, are smaller, less likely to have children, and have a less educated reference person. Also, about half of all working poor households consist of multiple adults and one or more children. In contrast, about 64 percent of poor elderly households consist of just one elderly person; another 10 percent of poor elderly households contain just two elderly persons.

Working poor and poor elderly households share some economic characteristics. Relative to all FSP-eligible households, both working poor and poor elderly households:

- ***Have higher income as a percentage of the poverty threshold.*** For the working poor, this income is primarily from earnings. For the poor elderly, this income includes Social Security, pensions, and SSI.
- ***Are more likely to have assets.*** The poor elderly are also more likely to own their home.
- ***Are eligible for lower food stamp benefits per person in the household.***

2. FSP Participation Rates

While about 70 percent of all FSP-eligible households participate in the FSP, only about 48 percent of the working poor and 34 percent of the poor elderly participate in the FSP. Some of this difference in the participation rate can be explained by household characteristics, such as the presence of assets, home ownership, and the amount of food stamps for which the household is eligible. However, even after controlling for many observed household characteristics, we still find that working poor and poor elderly households have lower participation rates than FSP-eligible households in general.

3. Food Security, Food Expenditure, and Use of Food Assistance Programs

Although the evidence is not conclusive, most of it suggests that the working poor are slightly more food secure than other FSP-eligible households. Between 56 and 63 percent (depending on the data source) of all working poor households report having enough food to eat of the kinds they want; and between 8 and 16 percent of these households either sometimes or often do not have enough to eat.

In addition, compared with all low-income households, working poor households:

- Spend on average about \$1 *less* per person per week on food
- Are *more* likely to participate in other food assistance programs, especially those for children, such as WIC and school meal programs

There is considerable evidence that the poor elderly are more food secure than all low-income households. Between 73 and 75 percent of poor elderly households report having enough food of the kinds they want; and between 3 and 10 percent of these households either sometimes or often do not have enough to eat.

In addition, compared with all low-income households, poor elderly households:

- Spend on average about \$2 *more* per person per week on food
- Are *less* likely to participate in other food assistance programs

4. Dynamics of FSP Participation

The working poor and poor elderly exhibit very different patterns of FSP participation over time. The working poor exhibit a high turnover in FSP participation. They frequently move on and off food stamps and typically receive food stamps for only short spells. In contrast, the poor elderly exhibit a low turnover in FSP participation. They are less likely than other people to start receiving food stamps, but once on food stamps, they are less likely to leave the FSP. They typically receive food stamps for slightly longer spells than other people.

The working poor exhibit a high turnover in FSP participation because they experience frequent changes in their income and household composition, particularly changes in earnings. These changes result in frequent changes in FSP eligibility. And, the changes themselves are also important factors in “triggering” people to enter or leave the FSP. Over three-quarters of people in households with earnings who enter and leave the FSP do so after experiencing a change in income, most frequently a change in earnings.

The poor elderly exhibit a low turnover in FSP participation for two reasons. First, they have very stable households and do not frequently experience changes in income or household composition. Hence, they experience fewer changes in FSP eligibility and are less likely to experience the events that trigger other people to either enter or leave the program. Second, even after experiencing a change in income or household composition, people in elderly households are less likely than other people to either enter or leave the FSP. About one-half of all entries into and exits from the FSP by the poor elderly are *not* related to any recent change in income or household composition. This suggests that other important factors play a role in the decision of the poor elderly to participate in the FSP.

B. THE REASONS FOR LOW FSP PARTICIPATION BY THE WORKING POOR AND POOR ELDERLY

Although by no means conclusive, the evidence suggests that many factors play a role in the low FSP participation of the working poor and poor elderly. We present evidence that all three broad categories of reasons for low participation--informational problems, a low overall benefit from participating, and high costs of participating--contribute to the low FSP participation of the poor elderly and the working poor. However, the relative importance of any one factor in explaining the low participation rates may not be the same for each group.

Perhaps the most important reason for low FSP participation by the working poor is informational problems--especially misperceptions about their eligibility for food stamps. However, a low monthly benefit amount and the time, money, and hassle involved in applying for food stamps may also play important roles. For the poor elderly, the evidence suggests that a low overall benefit from participating-- because of a lack of need for food stamps and a small food stamp benefit amount--is central to their low participation. The poor elderly may also be affected by informational problems--perceived ineligibility and confusion about the FSP application process--and the time, money, and hassle involved in applying for food stamps.

Below we summarize the available evidence for the importance of each potential reason for nonparticipation.

1. Informational Problems

There is considerable evidence that informational problems deter some FSP-eligible households from participating. The main informational problem seems to be FSP-eligible households incorrectly perceiving that they are ineligible for the FSP. Some working poor households may perceive that they are ineligible for the FSP because they have earnings. Some poor elderly households may perceive that

they are ineligible for the FSP because they have assets, Social Security income, and/or because they own their home.

More specifically, the following evidence suggests that informational problems act as a deterrent to FSP participation for the working poor and poor elderly:

- When asked directly why they do not participate in the FSP, slightly more than half of eligible nonparticipants in the Panel Study of Income Dynamics (PSID) said they thought they were not eligible for food stamps. Working poor households gave this answer slightly more frequently than other FSP-eligible households. However, these households were determined eligible only on the basis of data from the PSID, and some of these households may, in fact, have been ineligible for food stamps.
- Direct evidence from other surveys suggests that about 33 to 40 percent of FSP-eligible nonparticipants perceive that they are ineligible for food stamps.
- Direct evidence for the reasons for nonparticipation in the Supplemental Security Income (SSI) program from several different studies also suggests that a majority of SSI-eligible nonparticipants did not know about SSI or think they are ineligible.
- In focus group discussions, poor elderly nonparticipants frequently cited informational problems as reasons for nonparticipation.
- Among FSP-eligible nonparticipants that applied for the FSP but never received food stamps in the SSI/Elderly Cashout Demonstration, about 80 percent cited having been previously denied food stamps as the reason for current nonparticipation. This suggests that once told they are ineligible, households may continue to believe this even if their circumstances or the FSP-eligibility criteria change.
- The presence of earnings, the presence of assets, and home ownership are each negatively associated with FSP participation. This is consistent with the hypothesis that households with earnings, with assets, or that own their homes are more likely to believe they are ineligible for food stamps. Working poor households, by definition, have earnings and are more likely than other FSP-eligible households to have assets. Poor elderly households are more likely than other FSP-eligible households to have assets and to own their home.
- Receipt of other forms of public assistance, such as SSI or AFDC, is positively associated with FSP participation. One possible explanation for this relationship is that households are more likely to learn about both their eligibility for the FSP and how to apply for food stamps if they are already in the welfare system.
- Successful outreach programs focus on providing information that dispels myths about FSP-eligibility.

- Household size is positively associated with FSP participation, even after controlling for income, the amount of food stamp benefits the household is eligible for, and the presence of children. One possible explanation for this association is that, the greater the number of persons in the household, the more likely it is to have information about the FSP.

2. Low Overall Benefit from Participating

FSP-eligible persons will only apply for food stamps if they believe that the overall benefit from participating outweighs the costs. A low monthly benefit amount and a lack of need for food stamps are two important factors that lower the overall benefit to FSP participation. Working poor and poor elderly households are often eligible for only a small monthly food stamp benefit amount (per person in the household), and there is also evidence that the poor elderly may need food stamps less than other groups.

More specifically, the following evidence suggests that a low overall benefit from participating may contribute to nonparticipation by the working poor and poor elderly:

- The amount of food stamp benefits for which a household is eligible is positively associated with FSP participation. As many working poor and poor elderly households are eligible for low food stamp benefits per person, this may explain some of the nonparticipation by these groups.
- Working poor households are typically eligible for food stamps for only short periods at a time. This is consistent with the hypothesis that the total amount of food stamp benefits the working poor may receive from FSP participation may be low relative to the one-time costs of applying.
- When FSP-eligible nonparticipants who thought they were eligible for food stamps were asked directly about why they did not participate, they cited lack of need for food stamps as one of the two main reasons. The poor elderly gave this reason slightly more frequently.
- FSP participants are much less food secure than low-income nonparticipants, suggesting that a lack of food security may be an important determinant of FSP participation. The greater food security of the poor elderly relative to other low-income households may indicate less need for food stamps, and hence a lower benefit to FSP participation. However, as about 7 percent of poor elderly households that do not participate in the FSP do *not* have enough food, a lack of need for food stamps cannot be the only explanation for low participation by this group. As the difference

between the food security of working poor households and other low-income households is small, lack of need for food stamps is unlikely to be a major reason for nonparticipation by the working poor.

- Receipt of other forms of public assistance is positively associated with FSP participation. As households that perceive that they do not need food stamps are also likely to perceive that they do not need other forms of assistance, this association is also consistent with the hypothesis that a lack of need is a reason for low FSP participation.

3. Costs to Participating

The flip side of low benefits to participating is the high cost to participating. Evidence suggests that the costs of FSP participation *do* discourage participation. However, these costs are probably only a contributing, rather than a major, reason for the low participation rates of the working poor and poor elderly. Of the two groups, some evidence suggests that FSP participation costs are more important deterrents for the poor elderly. Most evidence suggests that the costs associated with the application process are the most important type of participation cost. And while the stigma associated with using food stamps and other psychological costs of participating probably contribute some to nonparticipation, evidence suggests that these psychological costs are probably not a major reason for nonparticipation by the working poor and poor elderly.

The following evidence suggests that costs associated with participation contribute, but are not central, to the nonparticipation in the FSP by the working poor and poor elderly:

- When FSP-eligible nonparticipants in the PSID who thought they were eligible for food stamps were asked directly about why they did not participate, administrative hassles associated with the FSP was the second most cited reason. As most of these nonparticipants had not tried to get food stamps, it was perceived rather than actual administrative hassles that discouraged participation.
- In other surveys that asked FSP-eligible nonparticipants directly about the reasons for nonparticipation, costs of FSP participation were also cited as a reason. But this reason was cited by no more than about one-fifth of the FSP-eligible nonparticipants.
- Several studies suggest that when FSP-eligible nonparticipants were asked directly about the reasons for nonparticipation, fewer than one in seven cited reasons related

to stigma. However, this evidence may understate the true role of stigma because (1) people may not like to admit that they feel stigmatized, (2) the stigma associated with receiving food stamps may discourage people from finding out about the program, and (3) a reported lack of desire or need for food stamps may be a reflection of the stigma associated with the FSP.

- Only about two-thirds of the persons who inquire about the FSP complete the application process. While some of the people who drop out of the process may have done so because they found that they were ineligible, others may have been deterred by the costs of the process itself.
- The costs of applying for food stamps are quite large. On average, it takes nearly 5 hours to complete the application process, and applicants incur \$10.40 in money costs--mainly for transportation to and from the food stamps office and in wages forgone while applying for food stamps. However, we have no strong evidence on whether these costs deter participation.
- As poor elderly households typically stay on the FSP for a long time when they participate, the costs associated with being on the program are probably not a major reason for low participation by these households. Costs associated with being on the program include those related to the monthly issuance process and the use of coupons or EBT cards.
- Many successful outreach programs, especially for the elderly, provide one-on-one assistance throughout the application process. This suggests that the application process itself is a deterrent to participation among the elderly.
- Receipt of other forms of public assistance is positively associated with FSP participation. Households can apply for AFDC and the FSP simultaneously and can submit their FSP application form at the Social Security Administration (SSA) office. Thus, the positive relationship between FSP participation and AFDC and SSI participation may suggest that removing some of the costs to applying for food stamps encourages participation. This association is also consistent with the hypothesis that stigma deters participation, since households that are deterred from applying for one form of public assistance by stigma will also be deterred from applying for food stamps.

C. GAPS IN OUR KNOWLEDGE OF THE REASONS FOR LOW FSP PARTICIPATION BY THE WORKING POOR AND POOR ELDERLY

This report has suggested some potential reasons for low FSP participation by the working poor and poor elderly. It has also indicated which of these factors are likely to be relatively more important than others. However, the evidence is far from conclusive. At this point, too many questions remain

to make any recommendations on the appropriate policy response to the low FSP participation by the working poor and poor elderly.

We identify three main gaps in our knowledge of the reasons for low FSP participation:

1. ***We do not have a complete understanding of the relative importance of each reason for low FSP participation by all FSP-eligible households, and we have even less of an understanding of their relative importance for the working poor and poor elderly.*** For example, we do not know whether the lack of need for food stamps is more or less important than informational problems in explaining the low participation of the poor elderly. Identifying the *major* reasons for low participation is important from a policy perspective.
2. ***It is difficult to tease out the underlying reasons for low FSP participation.*** Many of the reasons given for nonparticipation could be the result of multiple factors. For example, lack of knowledge about the FSP may be a result of one or more of the following: (1) a lack of effective outreach, (2) problems in obtaining information when visiting or calling the FSP office, (3) the embarrassment and humiliation associated with finding out about an assistance program, or (4) the unwillingness of households to invest the time to find out about the FSP when they expect only a low benefit amount. The appropriate policy response differs accordingly.
3. ***Surveys typically identify reasons for low FSP participation that are often too broad for policy purposes.*** For example, direct survey evidence suggests that many FSP-eligible households think they are ineligible for food stamps. However, it is important from a policy perspective to understand *why* some households believe that their assets or income are too high to be eligible for food stamps. From where do these households obtain their information about FSP eligibility rules? Surveys also suggest that “administrative hassles” play a role in nonparticipation, but they do not provide information on the specific types of administrative hassles that deter participation.

One reason for these gaps in our knowledge is that much of the evidence is indirect--in this study we compared characteristics of households that participate in the FSP with those of FSP-eligible households that do not participate. The inferences that can be made from indirect evidence are limited; we can only speculate on the reasons for the associations between household characteristics and FSP participation. And, in many cases, the associations are consistent with more than one reason for nonparticipation. For example, the positive association between FSP participation and participation in other assistance programs is consistent with all three broad reasons for nonparticipation.

Another reason for these gaps is that the direct evidence we *do* have on the reasons for nonparticipation is weak. There are three main reasons for this:

1. ***The questions are too broad and open-ended.*** Most surveys ask nonparticipants broad questions that elicit broad responses. For example, surveys that ask “why didn’t you apply for food stamps?” elicit responses such as “I didn’t want to” or the “benefits are not worth the costs.” These responses are consistent with many explanations for nonparticipation.
2. ***The sample sizes in the surveys are too small.*** The sample sizes preclude making many statistically significant inferences about working poor and poor elderly households.
3. ***An accurate determination of FSP eligibility cannot be made with the data available from these surveys.*** This is especially problematic because perceived ineligibility is a reason frequently given for nonparticipation. To assess the importance of perceived ineligibility as a reason for low participation, we need to know how many of the respondents that cited perceived ineligibility as a reason for nonparticipation actually *were* ineligible for the FSP.

These gaps in our knowledge and weaknesses of existing evidence highlight the importance of conducting focus groups and developing the questionnaire on the reasons for nonparticipation by the working poor and poor elderly in this study.

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APPENDIX A

**COMPARISONS OF FSP ELIGIBILITY APPROXIMATIONS
USING DIFFERENT INCOME SCREENS**

In each phase of the Reaching the Working Poor and Poor Elderly study, we need to identify households that are eligible for food stamps. Determining FSP eligibility, however, is an extremely complex process that requires detailed information on the household's income, assets, vehicle ownership, and expenses. However, most survey data, including the SIPP Well-Being Module and the CPS Food Security Supplement analyzed in Chapter IV, contain no information on assets or expenses. In recruiting FSP-eligible persons for focus groups, it will be difficult to obtain all the information necessary to determine eligibility without significantly alienating the respondent and losing their cooperation. Similarly, when identifying respondents for a survey of the poor elderly and working poor it will be difficult to obtain all this information without significantly increasing nonresponse. In these contexts, it may only be possible to use a simple gross income screen to approximate eligibility determination.

This appendix explores how accurately simple gross income screens predict eligibility for the FSP. Our general approach is to compare the counts of households determined FSP-eligible (or ineligible) using two different methods for approximating FSP eligibility. The first method uses a complex microsimulation model and survey data on income, assets, expenses, and household composition. The second method uses only gross income information from the same survey data and a simple income screen instead of a microsimulation model. We consider four different gross income screens: (1) 100 percent of poverty, (2) 130 percent of poverty, (3) 150 percent of poverty, and (4) 185 percent of poverty. Our analysis is based on a cross-section of households from SIPP for January 1992.¹

A. ELIGIBILITY DETERMINATION USING THE FULL SET OF SIPP DATA

No survey data contain all the information to replicate perfectly the eligibility determination process. However, the SIPP contains more information on the variables necessary for determining FSP

¹The sample used for this analysis differs from the one analyzed in Chapter III in that it includes households that are not determined eligible for food stamps.

eligibility than any other household survey. The cross-section used here is obtained by combining data from Wave 7 of the 1990 SIPP panel and Wave 4 of the 1991 SIPP panel for January 1992. The topical modules administered in these two waves collect information on assets; vehicle ownership; and shelter, medical, and dependent care expenses.

Using the SIPP data, we impute FSP eligibility using the MATH[®] (or FOSTERS) microsimulation model (MATH SIPP). This model replicates the actual FSP eligibility determination process by mimicking the work of an FSP caseworker as closely as possible. Based on FSP eligibility rules and the information in SIPP, the model simulates whether each household is eligible for the FSP.

In this appendix, we implicitly assume that the MATH SIPP model determines eligibility correctly.

While there are a number of reasons why there will be a discrepancy between the number of households that are truly eligible and the number of households that are determined to be eligible by the MATH SIPP model, the discrepancy is small and unlikely to bias our results.²

B. POSSIBLE ERRORS IN APPROXIMATING FSP ELIGIBILITY

Two types of errors are possible when approximating eligibility:

1. Incorrectly inferring that a household is *ineligible* for food stamps when it is *eligible*
2. Incorrectly inferring that a household is *eligible* for food stamps when it is *ineligible*

The first type of error will occur when an income screen of *less* than 130 percent of poverty is used because, except for households that contain an elderly or disabled person, the FSP applies a gross income eligibility screen of 130 percent of poverty. This error may also occur when a gross income screen of 130 percent of poverty or a higher percentage of poverty is used, because the FSP does not apply the 130 percent income screen to households that contain an elderly or disabled person--these

²The reasons for the discrepancy are discussed in Chapter III, Section A.

households need meet only a net income screen (gross income minus certain deductions) of 100 percent of poverty to be eligible for food stamps.

The second type of error will occur when using a simple gross income screen of 130 percent of poverty because some households meet the FSP's gross income eligibility test but not the FSP's other eligibility tests (such as the asset and net income test). It will also occur when using an income screen that is higher than 130 percent of poverty because some households that do not meet the FSP's 130 percent of poverty gross income test will be designated as eligible for food stamps.

C. COMPARISONS OF ELIGIBILITY DETERMINATION: ALL HOUSEHOLDS

The success of each income screen in determining eligibility for all households is shown in Table A1. The first row of the table shows the percentage of households determined eligible using both the MATH SIPP model and the income screen; the second row shows the percentage of households determined ineligible using the MATH SIPP model and the income screen; the third row shows the percentage of households determined eligible using the MATH SIPP model but ineligible using the income screen; and the fourth row shows the percentage of households determined ineligible using the MATH SIPP model but eligible using the income screen. The fifth row of Table A1 shows the percentage of households in which the income screen and the MATH SIPP model *agree* in their determination of eligibility. The sixth row shows the percentage of households in which the income screen and the MATH SIPP model *disagree* in the determination of eligibility. The last two rows of the table show the number of households determined eligible by the MATH SIPP model and the number of households determined eligible by the

income screen.³

Regardless of which of the four income screens is used, the MATH SIPP model and the gross income screen make the same determination of eligibility for a large majority of households. For example, Table A1 shows that an income screen of 100 or 130 percent of poverty makes the same determination of eligibility as the MATH SIPP model for over 90 percent of all households.

When an income screen is used to approximate eligibility, the number of households determined as FSP-eligible increases with the income screen. With an income screen of 100 percent of poverty, the number of households determined eligible by the income screen is lower than the number of households determined eligible by the MATH SIPP model. But once the income screen is 130 percent or higher, the number of households determined eligible using the income screen is larger than the number determined eligible by the MATH SIPP model. While the MATH SIPP model estimates that nearly 14 million households were eligible for food stamps, just over 17 million households had monthly income that did not exceed 130 percent of poverty, and over 27 million households had monthly income that did not exceed 185 percent of poverty.

Assuming that the MATH SIPP model correctly identifies households that are eligible for food stamps, Table A1 shows that an incorrect eligibility determination is made for 8 percent of all households using the 100 percent of poverty income screen, 7 percent of all households using the 130 percent of poverty income screen, 10 percent using the 150 percent of poverty income screen, and 16 percent using the 185 percent of poverty income screen. Hence, the fewest eligibility determination errors are made using the 130 percent of poverty income screen.

³In the analysis in this appendix, a "household" approximates the food stamp unit as defined by the FSP. In the analysis in Chapter III, the "household" is the Census household or dwelling unit. As a Census household can contain more than one food stamp unit, the number of FSP-eligible food stamp units (13.98 million in January 1992) is slightly higher than the number of FSP-eligible Census households (13.72 million).

D. COMPARISONS OF ELIGIBILITY DETERMINATION: ELDERLY AND WORKING HOUSEHOLDS

The success of the income screens in determining eligibility for elderly and working households is shown in Tables A2 and A3, respectively. Elderly households are defined as those that contained a person who is 60 years or older in January 1992. Working households are defined as those that had earnings in January 1992.

Table A2 shows that the fewest errors are made in the determination of eligibility for elderly households when a 100 percent of poverty income screen is used. An income screen of 100 percent of poverty makes an incorrect determination of eligibility for just under 11 percent of households: about 8 percent are determined eligible by the MATH SIPP model and ineligible by the income screen; and 3 percent are determined ineligible by the MATH SIPP model and eligible by the income screen. It is likely that a lower income screen works better for elderly households than all households because they are exempt from the FSP's 130 percent gross income test and need only meet the 100 percent net income test. However, the income screen of 130 percent is nearly as accurate; the percentage of elderly households for which an error is made rises by only 0.3 percentage points when the income screen rises from 100 percent to 130 percent of poverty.

Table A3 shows that errors in determining eligibility for working households using a simple income screen are lowest with an income screen of 130 percent of poverty. An income screen of 130 percent of poverty makes an incorrect determination of eligibility for only about 4.5 percent of households. About 2 percent are determined eligible by the MATH SIPP model and ineligible by the income screen; and 2.5 percent are determined ineligible by the MATH SIPP model and eligible by the income screen.

We find that the proportion of errors made using a gross income screen is much higher for elderly households than for working households, regardless of which of the four income screens is used. If an income screen of 130 percent of poverty is used, for example, errors occur in eligibility determination

for Table A3 only 4.5 percent of working household compared with 11 percent of elderly households (Table A3). Two possible reasons that there are more errors for the elderly are that: (1) the elderly do not face the gross income test, and (2) on average elderly households may have higher assets and deductible expenses than other households.

E. IMPLICATIONS FOR THE CHOICE OF INCOME SCREEN

If the only criteria in choosing an income eligibility screen is to minimize the sum of the two possible types of errors, this analysis suggests that out of 100, 130, 150, 185 percent of poverty, the best income screen is 130 percent of poverty for all households, 100 percent of poverty for elderly households, and 130 percent for working households. For simplicity, we use the same income screen--130 percent of poverty--for all groups when analyzing the SIPP Well-Being Module and the CPS Food Security Supplement in Chapter IV. Although fewer eligibility determination errors for elderly households are made using 100 percent of poverty to determine eligibility, the increase in errors with an income screen of 130 percent of poverty is small, as noted above.

In certain contexts, it may not be appropriate to weight the two types of eligibility determination errors equally as we have done here. For example, when one is particularly interested in households that do not exactly meet the FSP-eligibility requirements but nearly do so, the error of incorrectly determining ineligible households as eligible should have a lower weight than the error of incorrectly determining eligible households as ineligible.

TABLE A.1

COMPARISON OF FSP ELIGIBILITY DETERMINATION USING THE MATH SIPP MODEL AND GROSS INCOME SCREENS: ALL HOUSEHOLDS

| | Gross Income Screen: Income as Percent of Poverty | | | |
|---|---|-------|-------|-------|
| | 100% | 130% | 150% | 185% |
| Percentage of Households Determined As: | | | | |
| Eligible by the MATH SIPP Model and Eligible by the Income Screen | 9.4 | 12.5 | 13.0 | 13.6 |
| Ineligible by the MATH SIPP Model and Ineligible by the Income Screen | 82.7 | 80.1 | 76.8 | 70.4 |
| Eligible by the MATH SIPP Model and Ineligible by the Income Screen | 5.1 | 2.1 | 1.5 | 1.0 |
| Ineligible by the MATH SIPP Model and Eligible by the Income Screen | 2.8 | 5.3 | 8.6 | 15.0 |
| Percentage of Households in Which: | | | | |
| MATH SIPP Model and Income Screen Make the <i>Same</i> Eligibility Determination | 92.1 | 92.6 | 89.8 | 84.0 |
| MATH SIPP Model and Income Screen Make a <i>Different</i> Eligibility Determination | 7.9 | 7.4 | 10.1 | 16.0 |
| Number of Households (Millions) | | | | |
| Determined as Eligible by the MATH SIPP Model | 13.98 | 13.98 | 13.98 | 13.98 |
| Determined as Eligible by the Income Screen | 11.70 | 17.06 | 20.76 | 27.43 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights are used.

TABLE A.2

COMPARISON OF FSP ELIGIBILITY DETERMINATION USING THE MATH SIPP MODEL AND GROSS INCOME SCREENS: ELDERLY HOUSEHOLDS

| | Gross Income Screen: Income as Percent of Poverty | | | |
|---|---|------|------|-------|
| | 100% | 130% | 150% | 185% |
| Percentage of Households Determined As: | | | | |
| Eligible by the MATH SIPP Model and Eligible by the Income Screen | 9.0 | 13.3 | 14.3 | 15.5 |
| Ineligible by the MATH SIPP Model and Ineligible by the Income Screen | 80.2 | 75.6 | 71.2 | 62.9 |
| Eligible by the MATH SIPP Model and Ineligible by the Income Screen | 7.8 | 3.5 | 2.5 | 1.3 |
| Ineligible by the MATH SIPP Model and Eligible by the Income Screen | 3.0 | 7.6 | 12.0 | 20.3 |
| Percentage of Households in Which: | | | | |
| MATH SIPP Model and Income Screen Make the <i>Same</i> Eligibility Determination | 89.2 | 88.9 | 85.5 | 78.4 |
| MATH SIPP Model and Income Screen Make a <i>Different</i> Eligibility Determination | 10.8 | 11.1 | 14.5 | 21.6 |
| Number of Households (Millions) | | | | |
| Determined as Eligible by the MATH SIPP Model | 4.95 | 4.95 | 4.95 | 4.95 |
| Determined as Eligible by the Income Screen | 3.54 | 6.15 | 7.76 | 10.55 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights are used.

TABLE A.3

COMPARISON OF FSP ELIGIBILITY DETERMINATION USING THE MATH SIPP MODEL AND GROSS INCOME SCREENS: WORKING HOUSEHOLDS

| | Gross Income Screen: Income as Percent of Poverty | | | |
|---|---|------|------|-------|
| | 100% | 130% | 150% | 185% |
| Percentage of Households Determined As: | | | | |
| Eligible by the MATH SIPP Model and Eligible by the Income Screen | 3.3 | 5.4 | 5.7 | 6.2 |
| Ineligible by the MATH SIPP Model and Ineligible by the Income Screen | 91.6 | 90.2 | 87.7 | 82.1 |
| Eligible by the MATH SIPP Model and Ineligible by the Income Screen | 4.0 | 1.9 | 1.6 | 1.1 |
| Ineligible by the MATH SIPP Model and Eligible by the Income Screen | 1.2 | 2.5 | 5.0 | 10.6 |
| Percentage of Households in Which: | | | | |
| MATH SIPP Model and Income Screen Make the <i>Same</i> Eligibility Determination | 94.9 | 95.6 | 93.4 | 88.3 |
| MATH SIPP Model and Income Screen Make a <i>Different</i> Eligibility Determination | 5.2 | 4.4 | 6.6 | 11.7 |
| Number of Households (Millions) | | | | |
| Determined as Eligible by the MATH SIPP Model | 5.05 | 5.05 | 5.05 | 5.05 |
| Determined as Eligible by the Income Screen | 3.11 | 5.47 | 7.42 | 11.58 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights are used.

APPENDIX B

**FSP PARTICIPATION EQUATION:
ESTIMATION METHODOLOGY AND
COEFFICIENT ESTIMATES**

The purpose of this appendix is to (1) describe the estimation methodology used in our multivariate analysis of participation in the FSP and (2) present the probit coefficient estimates.

A. THE PARTICIPATION EQUATION

To estimate the effect of household characteristics on participation in the FSP, we specify a participation equation that relates the probability of participating in the FSP to the demographic and economic characteristics of households. This approach follows the existing literature on the determinants of participation (Martini 1992, Allin and Beebout 1989) by specifying a one-equation model, in which the dependent variable is the reported FSP participation status of the household, the explanatory variables are household demographic and economic characteristics, and the sample used in the estimation consists of households simulated to be eligible for the FSP.

The basic participation model can be written as:

$$(1) P = X\beta + e$$

where P is reported participation status (equal to one if it reports receipt of food stamps and equal to zero otherwise), X is a vector of observed household characteristics hypothesized to affect participation; β is a vector of parameters representing the "net effect" of the characteristics on participation; and e is a random error term representing all unobserved factors that affect participation.

B. THE PROBIT MODEL

An important complication arises in the estimation of equation (1). Because the dependent variable (P) is a discrete variable that assumes only two values, the application of standard regression techniques (ordinary least squares, or OLS) is problematic (Pindyck and Rubinfeld 1991). First, if equation (1) is estimated by OLS, the predicted participation rate can be less than zero or greater than 100 percent; second, the estimated variance (or standard error) of each estimated coefficient will be

biased. The standard approach to address these problems is to use a nonlinear model, such as a probit or a logit model (Maddala 1983). Both constrain the predicted probability to be positive and less than one. Here, we employ the probit model, which has been commonly used in previous research, including Martini (1992).

The underlying framework for the probit model is a latent variable model in which participation status, a discrete outcome, is viewed as the realization of an underlying latent continuous variable. In this case, the underlying latent variable can be thought of as the household's propensity to participate in the FSP. We can then write the model as:

$$P^* = X\beta + e$$

(2) $P = 1$ if $P^* > 0$ (the household participates)
 $P = 0$ if $P^* \leq 0$ (the household does not participate)

Equation (2) implies that the propensity to participate in the FSP is a function of observable (X) and unobservable (e) factors. If the latent variable, P^* , could be observed, then we could estimate equation (2) using standard regression methods. However, we only observe the discrete outcome of the underlying process (that is, participation or nonparticipation), which creates problems for using OLS.

Under the assumption that the error term, e , is normally distributed, we obtain the probit model. The probability of participation can then be written as:

$$(5) \text{Prob}(P = 1) = \text{Prob}(P^* > 0) = \text{Prob}(e < -X\beta) = \Phi(X\beta),$$

here Φ is the cumulative distribution function of the standard normal distribution. The vector β , representing the marginal effects of household characteristics on participation, can then be estimated using maximum likelihood estimation techniques.

C. THE EXPLANATORY VARIABLES

The explanatory variables (X) that we include in the FSP participation equation encompass the broad range of demographic and economic characteristics of households and the household reference person discussed in our comparison of participant and nonparticipant households (Chapter III); a complete list and definitions of these variables are provided in Table B.1. They include household income and economic resources; receipt of government transfers; the FSP benefit; household size, composition, and location; and characteristics of the reference person (employment, education, age, gender, race, education, marital status). Multivariate analysis enables us to examine the effect of each of these characteristics independent of all other characteristics in the model. In other words, we can identify the independent effect of the food stamp benefit level on participation, after taking into account the effects of household income; receipt of transfers; household size, composition, and location; and the reference person's characteristics on participation.

As described in Chapter III, we measure household characteristics based on the census definition of the household rather than the food stamp unit (FSU) definition. The census household provides a common unit of definition for participant and nonparticipant households, which is necessary to obtain unbiased estimates of the effect of characteristics on participation status. However, the potential food stamp benefit variable is simulated as part of the FSP eligibility simulation, which is based on the (simulated) FSU. Hence, that variable is defined for the FSU, which in some cases (about 12 percent of households) is a subset of the census household.

All of the characteristics included as explanatory variables in the FSP participation equation enter this equation as categorical variables--both those characteristics that are categorical in nature (such as race or marital status) and those that are continuous in nature (such as age, income, or food stamp benefit amount). We divide these continuous variables into the discrete categories or levels that we used in our comparisons (Chapter III). For example, age is represented by a series of discrete age group

variables; each age group variable is equal to 1 if the reference person is in that age group and equal to 0 otherwise. The primary advantage of specifying the equation in terms of categorical variables is that it enables us to detect nonlinear and irregular effects of continuous variables. For example, consider that FSP participation is significantly higher when the reference person is between the ages of 30 and 39, significantly lower for those when he or she is 60 years or older, but virtually the same for all other age groups. If we entered age in the equation as a continuous variable (even a nonlinear form), we would not be able to capture the preceding pattern. However, if we entered age as a series of discrete age group categories, we would identify this pattern.

D. ESTIMATING THE PARTICIPATION EQUATION

We estimate a probit model of FSP participation [equation (1)] for all FSP-eligible households and for the two subgroups of interest. We include the same set of variables in the equation for each of the three groups, with two minor exceptions. First, we do not include WIC receipt in the poor elderly participation equation, and we do not include the receipt of veteran's benefits in the working poor participation equation because the types of transfer income are extremely uncommon in these groups. Second, we adjust the breakpoints for the categorical variables for reference person's age and for FSP benefits to reflect the different distributions of these variables in the different samples. Otherwise, the equations we use are identical.

Before examining the effect of our full list of characteristics in all three samples, we examine the effect of poor elderly and working poor status on FSP participation in the sample of all eligibles. To test for the effect of poor elderly status we alter the set of explanatory variables described above by adding a variable for "any elderly" and dropping the age of reference person variables. To test for the effect of working poor status, we alter the set of explanatory variables by adding a variable for "any earnings" and dropping the employment status of the reference person variables.

E. PRESENTATION OF RESULTS

In this report, we use two different formats to present the probit estimation results. First, we present the estimated probit coefficients and standard errors from each equation in the tables that follow (Tables B.2-B.6). These tables also indicate the statistical significance of the coefficient estimates and variable means. The coefficient estimates are reported in the appendix because probit coefficients do not provide a readily interpretable way to illustrate the effects of the explanatory variables on participation. In the main body of the report, we provide a more intuitive, illustrative presentation of the probit estimation results. In particular, we present predicted FSP participation rates and indicate the statistical significance of the underlying probit coefficient estimates from which the predicted rates are obtained. The predicted rates are presented for each level (or category) of each characteristic in the equation, while all other characteristics are hold fixed.

The method for obtaining the predicted participation rates from the probit equation estimates is best illustrated by example. Consider the effect of AFDC receipt on participation. Once we have estimated the probit participation equation based on the actual characteristics of households, we do the following. First, we set the value of the AFDC receipt variable to 1 for all households and compute the predicted probability based on the coefficient estimates and the actual values of all characteristics aside from AFDC receipt. We then measure the average predicted probability of FSP participation across all households. This value multiplied by 100 corresponds to the predicted FSP participation rate “AFDC received” in our table. Second, we set the value of the AFDC receipt variable to 0 and compute the average predicted probability of FSP participation and predicted participation rate for “AFDC not received” in the manner described above.

TABLE B.1

FSP PARTICIPATION EQUATION VARIABLE NAMES AND DEFINITIONS

| Variable Name | Definition |
|---------------------------------|---|
| Dependent Variable | |
| FSP Participation Status | 1 if household reports receipt of food stamps, 0 otherwise |
| Income as % of Poverty | |
| 0% | 1 if total household income including earnings is 0 % of poverty, 0 otherwise |
| 1-50% | 1 if total household income including earnings is between 1% and 50% of the poverty level, 0 otherwise |
| 51-75 % | 1 if total household income including earnings is between 51% and 75% of the poverty level, 0 otherwise |
| 76-100 % | 1 if total household income including earnings is between 76% and 100% of the poverty line, 0 otherwise |
| 101 % or more | 1 if total household income including earnings is 101% or more of the poverty line, 0 otherwise |
| Economic Resources | |
| Pension Present | 1 if any member of household receives any income from pensions, military retirement, life insurance income, and other retirement, disability or survivor payments, 0 otherwise |
| Assets Present | 1 if any member of the household has asset income from interest, dividends, rental income or other assets, 0 otherwise |
| Home Is Owned | 1 if living quarters are owned or are being bought by someone in the household, 0 otherwise |
| Government Transfers | |
| AFDC | 1 if anyone in the household receives any AFDC, 0 otherwise |
| SSI | 1 if anyone in the household receives any federally administered SSI, 0 otherwise |
| Other Welfare | 1 if any member of the household receives any income from welfare other than AFDC or SSI, such as General Assistance, foster child care payments or other welfare, 0 if otherwise |
| WIC ^a | 1 if any member of the household receives any vouchers from WIC, 0 otherwise |
| Housing Assistance | 1 if household resides in a public housing project owned by a local housing authority or if household's rent is subsidized by federal, state or local government, 0 otherwise |
| Veteran's Benefits ^b | 1 if any member of household receives any veterans' payments, 0 otherwise |

TABLE B.1 (continued)

| Variable Name | Definition |
|---|---|
| Social Security | 1 if any member of household receives any Social Security income, 0 otherwise |
| Potential Food Stamp Benefit^c | |
| \$0-10 | 1 if the potential food stamp benefit for household (or the sum of the potential benefit of each food stamp unit in household) is \$10 or less, 0 otherwise |
| \$11-50 | 1 if the potential food stamp benefit for household is between \$11 and 50, 0 otherwise |
| \$51-100 | 1 if the potential food stamp benefit for household is between \$51 and \$100, 0 otherwise |
| \$101-150 | 1 if the potential food stamp benefit for household is between \$101 and \$150, 0 otherwise |
| \$151-200 | 1 if the potential food stamp benefit for household is between \$151 and \$200, 0 otherwise |
| \$201-300 | 1 if the potential food stamp benefit for household is between \$201 and 300, 0 otherwise |
| \$301 or more | 1 if the potential food stamp benefit for household is \$301 or more, 0 otherwise |
| \$50 or less | 1 if the potential food stamp benefit for household is \$50 or less, 0 otherwise |
| \$151 or more | 1 if the potential food stamp benefit for household is \$151 or more, 0 otherwise |
| Household Size | |
| 1 Person | 1 if household contains 1 person, 0 otherwise |
| 2 People | 1 if household contains 2 people, 0 otherwise |
| 3 People | 1 if household contains 3 people, 0 otherwise |
| 4 People | 1 if household contains 4 people, 0 otherwise |
| 5 People or More | 1 if household contains 5 or more people, 0 otherwise |
| Household Composition | |
| Children | 1 if any member of the household is 17 years old or younger, 0 otherwise |
| Nonelderly Disabled Present | 1 if any nonelderly member of the household receives SSI or other welfare because of a disability defined as a physical, mental or health condition effecting the kind or amount of work one can do |

TABLE B.1 (continued)

| Variable Name | Definition |
|---|---|
| Metropolitan Status | |
| Metropolitan Resident | 1 if household is in a metropolitan area, 0 otherwise |
| Region | |
| South | 1 if household is in Delaware, Maryland, Virginia, West Virginia, Kentucky, North Carolina, Tennessee, South Carolina, Georgia, Florida, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas, or the District of Columbia, 0 otherwise |
| Northeast | 1 if household is in Maine, Vermont, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Massachusetts, or Connecticut, 0 otherwise |
| Midwest | 1 if household is in Iowa, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Missouri, Wisconsin, Illinois, Michigan, Indiana or Ohio, 0 otherwise |
| West | 1 if household is in Alaska, Idaho, Montana, Wyoming, Washington, Oregon, California, Nevada, Utah, Arizona, New Mexico, Colorado, Hawaii, 0 otherwise |
| Reference Person Characteristics | |
| Employment Status^d | |
| Employed | 1 if household reference person is working and not looking for other work or is working more hours than s/he is looking for other work , 0 otherwise |
| Unemployed | 1 if household reference person is not employed but is looking for work, 0 otherwise |
| Not in Labor Force | 1 if household reference person is not employed or looking for work , 0 otherwise |
| Completed Education | |
| Primary or Less | 1 if household reference person has completed 8 or fewer years of education, 0 otherwise |
| Some High School | 1 if household reference person has completed between eight and eleven years of education, 0 otherwise |
| High School | 1 if household reference person has completed twelve years of education, 0 otherwise |
| 1 to 3 Years College | 1 if household reference person has completed fewer than 4 years of college education, 0 otherwise |
| At Least 4 Years College | 1 if household reference person has completed at least 4 years of college education, 0 otherwise |

TABLE B.1 (continued)

| Variable Name | Definition |
|-------------------------------|---|
| Age Group^e | |
| 15-29 | 1 if reference person is between the ages of 15 and 29, 0 otherwise |
| 30-39 | 1 if reference person is between the ages of 30 and 39, 0 otherwise |
| 40-49 | 1 if reference person is between the ages of 40 and 49, 0 otherwise |
| 50-59 | 1 if reference person is between the ages of 50 and 59, 0 otherwise |
| 60 or Older | 1 if reference person is 60 years old or older, 0 otherwise |
| Younger Than 60 | 1 if reference person is younger than 60 years old, 0 otherwise |
| 60-69 | 1 if reference person is between the ages of 60 and 69, 0 otherwise |
| 70-79 | 1 if reference person is between the ages of 70 and 79, 0 otherwise |
| 80 or Older | 1 if reference person is 80 years old or older, 0 otherwise |
| Gender | |
| Male | 1 if household reference person is male, 0 otherwise |
| Race and Ethnicity | |
| White Non-Hispanic | 1 if the household reference person's race is white and ethnicity is Non-Hispanic, 0 otherwise |
| Black Non-Hispanic | 1 if household reference person's race is black and ethnicity is Non-Hispanic, 0 otherwise |
| Hispanic or Other | 1 if household reference person's ethnicity is hispanic or race is American Indian, Eskimo, Aleut, Asian or Pacific Islander, 0 otherwise |
| Marital Status | |
| Married | 1 if household reference person is married to either a present or absent spouse, 0 otherwise |
| Divorced/Separated | 1 if household reference person is divorced or separated, 0 otherwise |
| Widowed | 1 if household reference person is widowed, 0 otherwise |
| Never Married | 1 if household reference person has never married, 0 otherwise |
| Subgroup Status | |
| Elderly Present ^f | 1 if any household member age 60 years or older, 0 otherwise |
| Earnings Present ^g | 1 if any household has any earnings, 0 otherwise |

TABLE B.1 (continued)

^aWIC receipt is not included in the equation estimated for the poor elderly subgroup.

^bVeteran's benefits receipt is not included in the equation estimated for the working poor subgroup.

^cThe series of benefit variables included in the equation vary by subgroup due to differing distributions.

^d The employment status variables are omitted from the equation estimated to test for the "working poor" status effect.

^eThe series of age group variables included in the equation vary by subgroup due to differencing age distributions. The age variables are omitted from the equation estimated to test for the "poor elderly" effect.

^fThis variable is included only in the estimation to test for the "poor elderly" status effect.

^gThis variable is included only in the estimation to test for the "working poor" status effect; this estimation omits the employment status variables.

TABLE B.2

FSP PARTICIPATION EQUATION PROBIT ESTIMATES AND VARIABLE MEANS:
EFFECT OF POOR ELDERLY STATUS AMONG ALL FSP-ELIGIBLES

| Variable | Probit Estimation Results | | | |
|---------------------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | Variable Mean |
| Poor Elderly (Elderly present) | -0.200 | (0.100) | ** | 0.354 |
| Constant | -0.531 | (0.148) | *** | |
| Income as % of Poverty | | | | |
| 0% | -0.445 | (0.130) | *** | 0.049 |
| 1-50% | --- | --- | --- | 0.181 |
| 51-75 % | 0.048 | 0.089 | | 0.176 |
| 76-100 % | 0.079 | (0.094) | | 0.243 |
| 101 % or More | -0.191 | (0.104) | * | 0.352 |
| Economic Resources | | | | |
| Pension Present | -0.132 | (0.101) | | 0.062 |
| Assets Present | -0.197 | (0.063) | *** | 0.192 |
| Home is Owned | -0.125 | (0.056) | ** | 0.352 |
| Government Transfers | | | | |
| AFDC | 1.557 | (0.092) | *** | 0.224 |
| SSI | 0.769 | (0.082) | *** | 0.187 |
| Other Welfare | 1.228 | (0.113) | *** | 0.055 |
| WIC | 0.350 | (0.135) | *** | 0.065 |
| Housing Assistance | 0.332 | (0.069) | *** | 0.212 |
| Veteran's Benefits | 0.116 | (0.142) | | 0.033 |
| Social Security | 0.015 | (0.087) | | 0.350 |
| Potential Food Stamp Benefit | | | | |
| \$0-10 | --- | --- | --- | 0.129 |
| \$11-50 | 0.147 | (0.096) | | 0.135 |
| \$51-100 | 0.142 | (0.099) | | 0.146 |
| \$101-150 | 0.222 | (0.102) | ** | 0.203 |

TABLE B.2 (continued)

| Variable | Probit Estimation Results | | | |
|---|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | Variable Mean |
| \$151-200 | 0.259 | (0.135) | * | 0.088 |
| \$201-300 | 0.359 | (0.130) | *** | 0.197 |
| \$301 or More | 0.577 | (0.187) | *** | 0.102 |
| Household Size | | | | |
| 1 Person | --- | --- | --- | 0.353 |
| 2 People | 0.137 | (0.078) | * | 0.200 |
| 3 People | 0.234 | (0.115) | ** | 0.159 |
| 4 People | 0.347 | (0.136) | ** | 0.124 |
| 5 People or More | 0.284 | (0.151) | * | 0.164 |
| Household Composition | | | | |
| Children Present | 0.043 | (0.098) | | 0.490 |
| Nonelderly Disabled Present | -0.101 | (0.112) | | 0.107 |
| Metropolitan Status | | | | |
| Metropolitan Resident | -0.114 | (0.059) | * | 0.677 |
| Region | | | | |
| South | --- | --- | --- | 0.402 |
| Northeast | -0.052 | (0.075) | | 0.198 |
| Midwest | -0.095 | (0.066) | | 0.222 |
| West | -0.305 | (0.077) | *** | 0.178 |
| Reference Person Characteristics | | | | |
| Employment Status | | | | |
| Employed | -0.300 | (0.071) | *** | 0.284 |
| Unemployed | -0.024 | 0.088 | | 0.110 |
| Not in Labor Force | --- | --- | --- | 0.605 |
| Completed Education | | | | |
| Primary or Less | --- | --- | --- | 0.259 |
| Some High School | -0.030 | (0.068) | | 0.256 |
| High School | -0.117 | (0.068) | * | 0.325 |

TABLE B.2 (continued)

| Variable | Probit Estimation Results | | | Variable Mean |
|---------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| 1 to 3 Years College | -0.204 | (0.088) | ** | 0.122 |
| At Least 4 Years College | -0.330 | (0.122) | *** | 0.039 |
| Gender | | | | |
| Male | -0.122 | (0.064) | * | 0.384 |
| Race and Ethnicity | | | | |
| White Non-Hispanic | --- | --- | --- | 0.562 |
| Black Non-Hispanic | 0.049 | (0.061) | | 0.255 |
| Hispanic or Other | 0.029 | (0.066) | | 0.183 |
| Marital Status | | | | |
| Married | 0.026 | (0.089) | | 0.267 |
| Divorced/Separated | 0.127 | (0.074) | * | 0.289 |
| Widowed | -0.062 | (0.088) | | 0.218 |
| Never Married | --- | --- | --- | 0.226 |

SOURCE: January 1992 MATH SIPP Food Stamp Eligibility file.

NOTES: Household weights are used. Robust standard errors based on Huber's (White's) formula for individual data are reported. Sample size is 4,934.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

TABLE B.3

FSP PARTICIPATION EQUATION PROBIT ESTIMATES AND VARIABLE MEANS:
EFFECT OF WORKING POOR STATUS AMONG ALL FSP-ELIGIBLES

| Variable | Probit Estimation Results | | | Variable Mean |
|--|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| Working Poor (Earnings Present) | -0.139 | (0.068) | ** | 0.361 |
| Constant | -0.536 | (0.152) | *** | |
| Income as % of Poverty | | | | |
| 0% | -0.458 | (0.132) | *** | 0.049 |
| 1-50% | --- | --- | --- | 0.181 |
| 51-75 % | 0.031 | (0.091) | | 0.176 |
| 76-100 % | 0.062 | (0.095) | | 0.243 |
| 101 % or More | -0.216 | (0.107) | ** | 0.352 |
| Economic Resources | | | | |
| Pension Present | -0.122 | (0.100) | | 0.062 |
| Assets Present | -0.209 | (0.062) | *** | 0.192 |
| Home Is Owned | -0.123 | (0.057) | ** | 0.352 |
| Government Transfers | | | | |
| AFDC | 1.603 | (0.091) | *** | 0.224 |
| SSI | 0.790 | (0.080) | *** | 0.187 |
| Other Welfare | 1.271 | (0.114) | *** | 0.055 |
| WIC | 0.340 | (0.142) | ** | 0.065 |
| Housing Assistance | 0.351 | (0.069) | *** | 0.212 |
| Veteran's Benefits | 0.147 | (0.143) | | 0.033 |
| Social Security | 0.078 | (0.087) | | 0.350 |
| Potential Food Stamp Benefit | | | | |
| \$0-10 | --- | --- | --- | 0.129 |
| \$11-50 | 0.141 | (0.096) | | 0.135 |
| \$51-100 | 0.136 | (0.098) | | 0.146 |
| \$101-150 | 0.219 | (0.102) | ** | 0.203 |

TABLE B.3 (continued)

| Variable | Probit Estimation Results | | | |
|---|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | Variable Mean |
| \$151-200 | 0.242 | (0.134) | * | 0.088 |
| \$201-300 | 0.360 | (0.130) | *** | 0.197 |
| \$301 or More | 0.594 | (0.184) | *** | 0.102 |
| Household Size | | | | |
| 1 Person | --- | --- | --- | 0.353 |
| 2 People | 0.152 | (0.080) | * | 0.200 |
| 3 People | 0.261 | (0.117) | ** | 0.159 |
| 4 People | 0.391 | (0.139) | *** | 0.124 |
| 5 People or More | 0.318 | (0.156) | ** | 0.164 |
| Household Composition | | | | |
| Children Present | -0.004 | (0.099) | | 0.490 |
| Nonelderly Disabled Present | -0.100 | (0.113) | | 0.107 |
| Metropolitan Status | | | | |
| Metropolitan Resident | -0.114 | (0.059) | * | 0.677 |
| Region | | | | |
| South | --- | --- | --- | 0.402 |
| Northeast | -0.031 | (0.074) | | 0.198 |
| Midwest | -0.084 | (0.066) | | 0.222 |
| West | -0.292 | (0.076) | *** | 0.178 |
| Reference Person Characteristics | | | | |
| Completed Education | | | | |
| Primary or Less | --- | --- | --- | 0.259 |
| Some High School | -0.038 | (0.068) | | 0.256 |
| High School | -0.133 | (0.068) | ** | 0.325 |
| 1 to 3 Years College | -0.232 | (0.088) | *** | 0.122 |
| At Least 4 Years College | -0.366 | (0.121) | *** | 0.039 |
| Age Group | | | | |
| 15-29 | --- | --- | --- | 0.197 |

TABLE B.3 (continued)

| Variable | Probit Estimation Results | | | Variable Mean |
|---------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| 30-39 | -0.035 | (0.086) | | 0.232 |
| 40-49 | -0.217 | (0.093) | ** | 0.138 |
| 50-59 | 0.047 | (0.108) | | 0.098 |
| 60 or More | -0.295 | (0.125) | ** | 0.336 |
| Gender | | | | |
| Male | -0.134 | (0.063) | ** | 0.384 |
| Race and Ethnicity | | | | |
| White Non-Hispanic | --- | --- | --- | 0.562 |
| Black Non-Hispanic | 0.053 | (0.062) | | 0.255 |
| Hispanic or Other | 0.028 | (0.066) | | 0.183 |
| Marital Status | | | | |
| Married | 0.042 | (0.092) | | 0.267 |
| Divorced/Separated | 0.150 | (0.078) | * | 0.289 |
| Widowed | -0.018 | (0.092) | | 0.218 |
| Never Married | --- | --- | --- | 0.226 |

SOURCE: January 1992 MATH SIPP Food Stamp Eligibility file.

NOTES: Household weights are used. Robust standard errors based on Huber's (White's) formula for individual data are reported. Sample size is 4,934.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

TABLE B.4

FSP PARTICIPATION EQUATION PROBIT ESTIMATES AND
VARIABLE MEANS FOR ALL FSP-ELIGIBLE HOUSEHOLDS

| Variable | Probit Estimation Results | | | Variable Mean |
|-------------------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| Constant | -0.483 | (0.154) | *** | |
| Income as % of Poverty | | | | |
| 0% | -0.458 | (0.129) | *** | 0.049 |
| 1-50% | --- | --- | --- | 0.181 |
| 51-75 % | 0.049 | (0.090) | | 0.176 |
| 76-100 % | 0.089 | (0.094) | | 0.243 |
| 101 % or More | -0.174 | (0.103) | * | 0.352 |
| Economic Resources | | | | |
| Pension Present | -0.128 | (0.100) | | 0.062 |
| Assets Present | -0.198 | (0.063) | *** | 0.192 |
| Home Is Owned | -0.112 | (0.057) | ** | 0.352 |
| Government Transfers | | | | |
| AFDC | 1.560 | (0.093) | *** | 0.224 |
| SSI | 0.778 | (0.080) | *** | 0.187 |
| Other Welfare | 1.235 | (0.114) | *** | 0.055 |
| WIC | 0.341 | (0.136) | ** | 0.065 |
| Housing Assistance | 0.354 | (0.069) | *** | 0.212 |
| Veteran's Benefits | 0.116 | (0.142) | | 0.033 |
| Social Security | 0.039 | (0.087) | | 0.350 |
| Potential Food Stamp Benefit | | | | |
| \$0-10 | --- | --- | --- | 0.129 |
| \$11-50 | 0.142 | (0.096) | | 0.135 |
| \$51-100 | 0.144 | (0.099) | | 0.146 |
| \$101-150 | 0.227 | (0.102) | ** | 0.203 |
| \$151-200 | 0.264 | (0.134) | ** | 0.088 |

TABLE B.4 (continued)

| Variable | Probit Estimation Results | | | Variable Mean |
|---|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| \$201-300 | 0.372 | (0.130) | *** | 0.197 |
| \$301 or More | 0.602 | (0.184) | *** | 0.102 |
| Household Size | | | | |
| 1 Person | --- | --- | --- | 0.353 |
| 2 People | 0.128 | (0.079) | | 0.200 |
| 3 People | 0.217 | (0.115) | * | 0.159 |
| 4 People | 0.341 | (0.137) | ** | 0.124 |
| 5 People or More | 0.276 | (0.152) | * | 0.164 |
| Household Composition | | | | |
| Children Present | 0.033 | (0.099) | | 0.490 |
| Nonelderly Disabled Present | -0.139 | (0.114) | | 0.107 |
| Metropolitan Status | | | | |
| Metropolitan Resident | -0.114 | (0.058) | * | 0.677 |
| Region | | | | |
| South | --- | --- | --- | 0.402 |
| Northeast | -0.043 | (0.074) | | 0.198 |
| Midwest | -0.090 | (0.066) | | 0.222 |
| West | -0.305 | (0.077) | *** | 0.178 |
| Reference Person Characteristics | | | | |
| Employment Status | | | | |
| Employed | -0.316 | (0.071) | *** | 0.284 |
| Unemployed | -0.031 | (0.089) | | 0.110 |
| Not in Labor Force | --- | --- | --- | 0.605 |
| Completed Education | | | | |
| Primary or Less | --- | --- | --- | 0.259 |
| Some High School | -0.039 | (0.068) | | 0.256 |
| High School | -0.128 | (0.068) | * | 0.325 |
| 1 to 3 Years College | -0.211 | (0.089) | ** | 0.122 |

TABLE B.4 (continued)

| Variable | Probit Estimation Results | | | Variable Mean |
|---------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| At least 4 Years College | -0.314 | (0.122) | *** | 0.039 |
| Age Group | | | | |
| 15-29 | --- | --- | --- | 0.197 |
| 30-39 | -0.049 | (0.085) | | 0.232 |
| 40-49 | -0.224 | (0.092) | ** | 0.138 |
| 50-59 | 0.044 | (0.107) | | 0.098 |
| 60 or More | -0.341 | (0.127) | *** | 0.336 |
| Gender | | | | |
| Male | -0.116 | (0.064) | * | 0.384 |
| Race and Ethnicity | | | | |
| White | --- | --- | --- | 0.562 |
| Black Non-Hispanic | 0.057 | (0.062) | | 0.255 |
| Hispanic or Other | 0.029 | (0.066) | | 0.183 |
| Marital Status | | | | |
| Married | 0.042 | (0.091) | | 0.267 |
| Divorced/Separated | 0.161 | (0.077) | ** | 0.289 |
| Widowed | -0.023 | (0.091) | | 0.218 |
| Never Married | --- | --- | --- | 0.226 |

SOURCE: January 1992 MATH SIPP Food Stamp Eligibility file.

NOTES: Household weights are used. Robust standard errors based on Huber's (White's) formula for individual data are reported. Sample size is 4,934.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

TABLE B.5

FSP PARTICIPATION EQUATION PROBIT ESTIMATES AND
VARIABLE MEANS FOR POOR ELDERLY HOUSEHOLDS

| Variable | Probit Estimation Results | | | Variable Mean |
|-------------------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| Constant | -0.715 | (0.283) | ** | |
| Income as % of Poverty | | | | |
| 0% | -0.638 | (0.569) | | 0.007 |
| 1-50% | --- | --- | --- | 0.053 |
| 51-75 % | -0.020 | (0.210) | | 0.122 |
| 76-100 % | 0.136 | (0.201) | | 0.355 |
| 101 % or More | -0.010 | (0.215) | | 0.463 |
| Economic Resources | | | | |
| Pension Present | -0.230 | (0.113) | ** | 0.149 |
| Assets Present | -0.252 | (0.092) | *** | 0.273 |
| Home Is Owned | -0.159 | (0.093) | * | 0.516 |
| Government Transfers | | | | |
| AFDC | 1.409 | (0.247) | *** | 0.042 |
| SSI | 0.923 | (0.090) | *** | 0.321 |
| Other Welfare | 1.336 | (0.216) | *** | 0.029 |
| Housing Assistance | 0.001 | (0.107) | | 0.213 |
| Veteran's Benefits | 0.163 | (0.165) | | 0.072 |
| Social Security | -0.034 | (0.111) | | 0.829 |
| Potential Food Stamp Benefit | | | | |
| \$ 0-10 | --- | --- | --- | 0.270 |
| \$11-50 | 0.165 | (0.118) | | 0.254 |
| \$51-100 | 0.330 | (0.127) | *** | 0.181 |
| \$101-150 | 0.312 | (0.133) | ** | 0.188 |
| \$151 or More | 0.067 | (0.224) | | 0.107 |
| Household Size | | | | |

TABLE B.5 (continued)

| Variable | Probit Estimation Results | | | Variable Mean |
|---|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| 1 Person | --- | --- | --- | 0.640 |
| 2 People | 0.054 | (0.123) | | 0.216 |
| 3 People | 0.055 | (0.208) | | 0.057 |
| 4 People | 1.038 | (0.287) | *** | 0.028 |
| 5 People or More | 1.076 | (0.287) | *** | 0.059 |
| Household Composition | | | | |
| Children Present | -0.282 | (0.214) | | 0.102 |
| Nonelderly Disabled Present | -0.029 | (0.181) | | 0.049 |
| Metropolitan Status | | | | |
| Metropolitan Resident | -0.318 | (0.086) | *** | 0.651 |
| South | --- | --- | --- | 0.450 |
| Northeast | 0.122 | (0.105) | | 0.232 |
| Midwest | -0.014 | (0.110) | | 0.200 |
| West | -0.265 | (0.139) | * | 0.117 |
| Reference Person Characteristics | | | | |
| Employment Status | | | | |
| Employed | -0.316 | (0.151) | ** | 0.095 |
| Unemployed | -0.136 | (0.406) | | 0.017 |
| Not in Labor Force | --- | --- | --- | 0.888 |
| Completed Education | | | | |
| Primary or Less | --- | --- | --- | 0.467 |
| Some High School | -0.028 | (0.092) | | 0.243 |
| High School | -0.233 | (0.116) | ** | 0.203 |
| 1 to 3 Years College | -0.162 | (0.186) | | 0.063 |
| At Least 4 Years College | -0.094 | (0.235) | | 0.024 |

TABLE B.5 (continued)

| Variable | Probit Estimation Results | | | Variable Mean |
|---------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| Age Group | | | | |
| 60 or Less | 0.097 | (0.198) | | 0.051 |
| 60-69 | --- | --- | --- | 0.390 |
| 70-79 | -0.088 | (0.091) | | 0.347 |
| 80 or More | -0.446 | (0.115) | *** | 0.212 |
| Gender | | | | |
| Male | -0.099 | (0.104) | | 0.337 |
| Race and Ethnicity | | | | |
| White Non-Hispanic | --- | --- | --- | 0.616 |
| Black Non-Hispanic | -0.069 | (0.091) | | 0.250 |
| Hispanic or Other | 0.077 | (0.116) | | 0.134 |
| Marital Status | | | | |
| Married | 0.134 | (0.168) | | 0.202 |
| Divorced/Separated | 0.319 | (0.146) | ** | 0.192 |
| Widowed | 0.152 | (0.139) | | 0.526 |
| Never Married | --- | --- | --- | 0.080 |

SOURCE: January 1992 MATH SIPP Food Stamp Eligibility file.

NOTES: Household weights are used. Robust standard errors based on Huber's (White's) formula for individual data are reported. Sample size is 1,770.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

TABLE B.6

FSP PARTICIPATION EQUATION PROBIT ESTIMATES AND
VARIABLE MEANS FOR WORKING POOR HOUSEHOLDS

| Variable | Probit Estimation Results | | | Variable Mean |
|-------------------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| Constant | -0.759 | (0.251) | *** | |
| Income as % of poverty | | | | |
| 0% | --- | --- | --- | --- |
| 1-50% | --- | --- | --- | 0.100 |
| 51-75 % | 0.077 | (0.144) | | 0.144 |
| 76-100 % | 0.168 | (0.155) | | 0.212 |
| 101 % or More | 0.007 | (0.158) | | 0.543 |
| Economic Resources | | | | |
| Pension Present | 0.067 | (0.218) | | 0.032 |
| Assets Present | 0.0361 | (0.091) | | 0.237 |
| Home Is Owned | -0.199 | (0.084) | ** | 0.381 |
| Government Transfers | | | | |
| AFDC | 1.362 | (0.112) | *** | 0.182 |
| SSI | 0.528 | (0.180) | *** | 0.111 |
| Other Welfare | 0.997 | (0.182) | *** | 0.045 |
| WIC | 0.437 | (0.163) | *** | 0.078 |
| Housing Assistance | 0.411 | (0.130) | *** | 0.113 |
| Veteran's Benefits | --- | --- | --- | --- |
| Social Security | 0.295 | (0.151) | ** | 0.130 |
| Potential Food Stamp Benefit | | | | |
| \$0-10 | --- | --- | --- | --- |
| \$11-50 | --- | --- | --- | --- |
| \$50 or Less | --- | --- | --- | 0.179 |
| \$51-100 | -0.012 | (0.148) | | 0.167 |
| \$101-150 | 0.201 | (0.143) | | 0.183 |

TABLE B.6 (continued)

| Variable | Probit Estimation Results | | | Variable Mean |
|---|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| \$151-200 | 0.214 | (0.169) | | 0.140 |
| \$201-300 | 0.453 | (0.168) | *** | 0.215 |
| \$301 or More | 0.891 | (0.231) | *** | 0.116 |
| Household Size | | | | |
| 1 Person | --- | --- | --- | 0.128 |
| 2 People | 0.286 | (0.166) | * | 0.193 |
| 3 People | 0.475 | (0.207) | ** | 0.200 |
| 4 People | 0.516 | (0.228) | ** | 0.190 |
| 5 People or More | 0.496 | (0.243) | ** | 0.290 |
| Household Composition | | | | |
| Children Present | -0.080 | (0.141) | | 0.695 |
| Nonelderly Disabled Present | -0.308 | (0.195) | | 0.082 |
| Metropolitan Status | | | | |
| Metropolitan Resident | -0.102 | (0.082) | | 0.661 |
| Region | | | | |
| South | --- | --- | --- | 0.432 |
| Northeast | -0.105 | (0.109) | | 0.150 |
| Midwest | -0.146 | (0.100) | | 0.212 |
| West | -0.234 | (0.114) | ** | 0.206 |
| Reference Person Characteristics | | | | |
| Employment Status | | | | |
| Employed | -0.280 | (0.106) | *** | 0.723 |
| Unemployed | -0.069 | (0.162) | | 0.078 |
| Not in Labor Force | --- | --- | --- | 0.199 |
| Completed Education | | | | |
| Primary or Less | --- | --- | --- | 0.168 |
| Some High School | 0.023 | (0.121) | | 0.221 |
| High School | -0.031 | (0.112) | | 0.400 |

TABLE B.6 (continued)

| Variable | Probit Estimation Results | | | Variable Mean |
|---------------------------|---------------------------|----------------|--------------------|---------------|
| | Probit Coefficient | Standard Error | Significance Level | |
| 1 to 3 Years College | -0.131 | (0.137) | | 0.150 |
| At Least 4 Years College | -0.270 | (0.180) | | 0.059 |
| Age Group | | | | |
| 15-29 | --- | --- | --- | 0.252 |
| 30-39 | -0.033 | (0.107) | | 0.325 |
| 40-49 | -0.365 | (0.127) | *** | 0.194 |
| 50-59 | -0.011 | (0.141) | | 0.111 |
| 60 or More | -0.336 | (0.182) | * | 0.118 |
| Gender | | | | |
| Male | -0.093 | (0.104) | | 0.501 |
| Race and Ethnicity | | | | |
| White Non-Hispanic | --- | --- | --- | 0.539 |
| Black Non-Hispanic | 0.070 | (0.102) | | 0.233 |
| Hispanic or Other | -0.097 | (0.098) | | 0.227 |
| Marital Status | | | | |
| Married | 0.086 | (0.128) | | 0.441 |
| Divorced/Separated | 0.181 | (0.125) | | 0.275 |
| Widowed | -0.061 | (0.190) | | 0.070 |
| Never Married | --- | --- | --- | 0.214 |

SOURCE: January 1992 MATH SIPP Food Stamp Eligibility file.

NOTES: Household weights are used. Robust standard errors based on Huber's (White's) formula for individual data are reported. Sample size is 1,864.

---Denotes omitted value of the variable in the estimated equation.

*Underlying coefficient significantly different from zero at the .10 level, two-tailed test.

**Underlying coefficient significantly different from zero at the .05 level, two-tailed test.

***Underlying coefficient different from zero at the .01 level, two-tailed test.

APPENDIX C

**COMPARISONS OF CHARACTERISTICS OF LOW-INCOME
HOUSEHOLDS IN THE JANUARY 1992 SIPP,
SIPP EXTENDED WELL-BEING MODULE,
AND CPS FOOD SECURITY SUPPLEMENT**

The analysis in this report is based on three samples of households from: (1) the January 1992 MATH SIPP food stamp eligibility file, (2) the SIPP Extended Well-Being Module and corresponding core files, and (3) the April CPS Food Security Supplement and corresponding core file. This appendix compares the demographic and economic characteristics of the households in each sample.

A. DIFFERENCES IN THE SAMPLES

When comparing household characteristics, it is important to note four important differences between the three samples of households:

1. ***Time Period Covered.*** The MATH SIPP file covers January 1992, the SIPP Well-Being Module covers September 1992 to December 1992, and the CPS covers April 1995.
2. ***Quality of Income Information.*** Compared with income information in the SIPP, the April CPS income information is of lower quality for four reasons: (1) the April CPS asks only for annual income, while the SIPP asks for monthly income, (2) the April CPS asks only for income in bands of \$2,499 or more, while the SIPP asks for the exact amount, (3) there is more underreporting of income in the April CPS than in the SIPP because the April CPS collects income information using only one question, while the SIPP asks about 60 sources of money income separately, and (4) the April CPS collects information on *family* income, while the SIPP collects information on *household* income.
3. ***Availability of Information to Approximate FSP-Eligibility Determination.*** Detailed information on income, assets, and expenses is available in the January 1992 SIPP and was used with a microsimulation model to approximate FSP-eligibility. Neither the SIPP Well-Being Module nor the April CPS contains information on assets or expenses. Hence, we make a less accurate approximation of FSP-eligibility for households in these samples. Instead of using a microsimulation model, we used a simple income screen to approximate FSP-eligibility for households in the SIPP Well-Being Module and the April CPS--all households with income less than 130 percent of poverty were considered as eligible for food stamps. Because the income data in the April CPS core file is of lower quality than the income data in SIPP, the income screen is a less accurate predictor of FSP-eligibility for the households in the April CPS than in the SIPP Well-Being Module.
4. ***Availability of Information to Identify the Working Poor.*** SIPP collects information on monthly earnings. The April CPS, however, asks about employment in the past week only. Hence, for the analyses using January 1992 SIPP and the SIPP Well-Being Module, a household is defined as working poor

if it is eligible for food stamps and has earnings in the same *month*. For the analysis using the April CPS, a household is defined as working poor if it is eligible for food stamps that month and someone in the household worked in the past *week*.

B. COMPARISONS OF CHARACTERISTICS

We compare six characteristics of the households across the samples: household size, whether the household includes children, whether the household is located in a metropolitan area, the region the household is located in, income, and food stamp benefits.

- ***Household Size and Presence of Children.*** Tables C.1 through C.3 show the distribution of households in each of the three samples by household size and the presence of children.
- ***Metropolitan Status and Region.*** Tables C.4 through C.6 show the distribution of households in each of the three samples by metropolitan status and region.
- ***Income.*** Tables C.7 and C.8 show the distribution of households in the January 1992 SIPP and the SIPP Well-Being Module by *household* income. Table C.9 shows the distribution of households in the April CPS Food Security Supplement by *family* income. For all three samples, income is presented as a percent of the poverty threshold based on the number of persons in the *household*.
- ***Food Stamp Benefits.*** Table C.10 shows the distribution of households in the January 1992 SIPP by food stamp benefits that are predicted by a microsimulation model. This is the measure of food stamp benefits used in the analysis in Chapter III. Tables C.11 and C.12 show the distribution of households by food stamp benefits reported in the SIPP Well-Being Module and the April CPS.

Despite the differences in the surveys, the distribution of the household characteristics in each sample are similar. In all three samples:

- Eligible nonparticipant households are smaller than participant households. On average, poor elderly households are smaller and working poor households are larger than all FSP-eligible households.
- Eligible nonparticipant households are more likely than participant households to have children. Working poor households are more likely than all FSP-eligible households to have children; and poor elderly households are less likely than all FSP-eligible households to have children.

- Residing in a metropolitan area is slightly more common among participants than nonparticipants.
- The distribution of the households across regions varies little by participation status, among the working poor, the poor elderly, and all FSP-eligible households.
- Nonparticipant households are more likely than participant households to have income above the poverty line. This is true for the working poor, the poor elderly, and all FSP-eligible households.
- Working poor and poor elderly households are more likely than all FSP-eligible households to have income above the poverty line.
- Food stamp benefits are lower for poor elderly households than for all participant households. In contrast, food stamp benefits are higher for working poor households than for all participant households. However, food stamp benefits as a percentage of the maximum benefit, a measure that controls for household size, are smaller for working poor households than for other participant households.

Three differences between the three samples in terms of household characteristics are noteworthy.

First, the proportion of one-person households in the April CPS sample is smaller than the proportion of one-person households in the two SIPP samples. One reason for this difference stems from the fact that there can be no difference between family income and household income in one-person households, while household income may be larger than family income in households with more than one member. The April CPS sample contains all households for which family income is below 130 percent of the poverty threshold for its household size. For one-person households, the income screen based on family income is the same as the income screen based on household income. However, for households with more than one person, the income screen based on family income is a less restrictive screen than the one based on household income used with the SIPP samples.

Second, the distribution of income in the April CPS sample is lower than the distribution in the SIPP samples. This is expected because (1) we use the lower end of the income band to determine income in the April CPS sample and the reported income amount in the SIPP samples, (2) we use

family income in the April CPS, while we use household income in the SIPP samples, and (3) there is more underreporting of income in the April CPS than in the SIPP samples.

Third, the proportion of households in the January 1992 SIPP with a simulated food stamp benefit equal to the maximum benefit is larger than the proportion of households in either the SIPP Well-Being Module or the April CPS with reported food stamp benefits equal to the maximum benefit. This is at least partly due to the difference between simulated and reported benefits. When simulated benefits are compared with reported benefits in the January 1992 SIPP, we find simulated benefits are higher on average than reported benefits.

TABLE C.1

HOUSEHOLD SIZE AND PRESENCE OF CHILDREN: JANUARY 1992 SIPP

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|------------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Household Size | | | | | | | | | |
| 1 Person | 35.4 | 21.3 | 47.6 | 64.0 | 55.3 | 68.1 | 12.8 | 4.0 | 19.0 |
| 2 People | 20.0 | 18.9 | 20.9 | 21.6 | 20.4 | 22.2 | 19.3 | 13.8 | 23.1 |
| 3 People | 15.9 | 20.3 | 12.0 | 5.7 | 6.2 | 5.5 | 20.0 | 21.3 | 19.0 |
| 4 People | 12.4 | 16.8 | 8.6 | 2.8 | 5.7 | 1.3 | 19.0 | 22.3 | 16.6 |
| 5 People or More | 16.4 | 22.6 | 10.9 | 5.9 | 12.5 | 2.8 | 29.0 | 38.6 | 22.3 |
| Household Composition | | | | | | | | | |
| Children Present | 49.0 | 67.3 | 33.0 | 10.2 | 19.3 | 5.8 | 69.5 | 83.1 | 59.9 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.2

HOUSEHOLD SIZE AND PRESENCE OF CHILDREN: SIPP EXTENDED WELL-BEING MODULE

| Characteristic | Percent Distribution of Low-Income Households | | | | | | | | |
|------------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Household Size | | | | | | | | | |
| 1 Person | 37.8 | 22.1 | 46.0 | 68.7 | 61.9 | 70.6 | 14.4 | 4.3 | 18.3 |
| 2 People | 20.3 | 19.0 | 21.0 | 22.5 | 21.1 | 22.9 | 19.1 | 12.4 | 21.6 |
| 3 People | 12.6 | 18.0 | 9.8 | 2.7 | 3.5 | 2.5 | 16.6 | 21.7 | 14.6 |
| 4 People | 13.6 | 18.6 | 11.0 | 2.3 | 3.9 | 1.8 | 22.2 | 26.3 | 20.7 |
| 5 People or More | 15.7 | 22.4 | 12.2 | 3.9 | 9.5 | 2.2 | 27.7 | 35.2 | 24.8 |
| Household Composition | | | | | | | | | |
| Children Present | 46.7 | 68.9 | 35.3 | 7.5 | 16.3 | 5.0 | 71.0 | 89.0 | 64.1 |
| Sample Size | 5,604 | 1,898 | 3,706 | 1,939 | 435 | 1,504 | 2,135 | 606 | 1,529 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well Being Module

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.3

HOUSEHOLD SIZE AND PRESENCE OF CHILDREN: CPS FOOD SECURITY SUPPLEMENT

| Characteristic | Percent Distribution of Low-Income Households | | | | | | | | |
|------------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Household Size | | | | | | | | | |
| 1 Person | 30.6 | 20.2 | 35.2 | 55.8 | 53.9 | 56.3 | 15.7 | 8.2 | 18.0 |
| 2 People | 21.7 | 17.8 | 23.5 | 26.1 | 19.7 | 27.6 | 20.3 | 12.9 | 22.6 |
| 3 People | 18.6 | 19.5 | 18.1 | 9.0 | 8.0 | 9.2 | 24.1 | 20.9 | 25.1 |
| 4 People | 13.1 | 17.8 | 10.9 | 3.3 | 4.2 | 3.1 | 17.4 | 22.3 | 15.8 |
| 5 People or More | 16.1 | 24.7 | 12.2 | 5.8 | 14.2 | 3.8 | 22.5 | 35.7 | 18.5 |
| Household Composition | | | | | | | | | |
| Children Present | 50.4 | 70.9 | 41.4 | 15.9 | 25.1 | 13.7 | 65.9 | 87.6 | 59.4 |
| Sample Size | 10,039 | 2,873 | 7,166 | 3,645 | 648 | 2,997 | 5,462 | 1,182 | 4,280 |

SOURCE: April 1995 CPS core file and Food Security Supplement

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.4

METROPOLITAN STATUS AND REGION: JANUARY 1992 SIPP

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|----------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Metropolitan Status | | | | | | | | | |
| Metropolitan | 67.7 | 68.6 | 66.9 | 65.1 | 60.5 | 67.4 | 66.1 | 65.0 | 66.8 |
| Nonmetropolitan | 32.3 | 31.4 | 33.1 | 34.9 | 39.5 | 32.6 | 33.9 | 35.0 | 33.2 |
| Region | | | | | | | | | |
| Northeast | 19.8 | 21.5 | 18.4 | 23.2 | 24.9 | 22.4 | 15.0 | 15.2 | 14.9 |
| South | 40.2 | 38.9 | 41.3 | 45.0 | 47.6 | 43.8 | 43.2 | 44.8 | 42.0 |
| Midwest | 22.2 | 23.0 | 21.5 | 20.1 | 17.9 | 21.1 | 21.2 | 21.8 | 20.8 |
| West | 17.8 | 16.7 | 18.9 | 11.7 | 9.7 | 12.7 | 20.6 | 18.3 | 22.3 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File.

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.5

METROPOLITAN STATUS AND REGION: SIPP EXTENDED WELL-BEING MODULE

| Characteristic | Percent Distribution of Low-Income Households | | | | | | | | |
|----------------------------|---|-------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All | | | Poor Elderly | | | Working Poor | | |
| | All | Participant | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Metropolitan Status | | | | | | | | | |
| Metropolitan | 67.3 | 67.9 | 67.0 | 65.1 | 65.8 | 64.9 | 64.5 | 59.3 | 66.5 |
| Nonmetropolitan | 32.7 | 32.1 | 33.0 | 34.9 | 34.2 | 35.1 | 35.5 | 40.7 | 33.5 |
| Region | | | | | | | | | |
| Northeast | 19.7 | 21.8 | 18.7 | 20.5 | 23.1 | 19.7 | 14.8 | 12.6 | 15.6 |
| South | 39.9 | 42.5 | 38.6 | 42.9 | 51.8 | 40.3 | 43.7 | 15.3 | 40.8 |
| Midwest | 21.0 | 20.7 | 21.1 | 20.3 | 14.4 | 22.0 | 21.9 | 22.0 | 21.8 |
| West | 19.3 | 15.0 | 21.6 | 16.3 | 10.6 | 18.0 | 19.6 | 14.1 | 21.7 |
| Sample Size | 5,604 | 1,898 | 3,706 | 1,939 | 435 | 1,504 | 2,135 | 606 | 1,529 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Module

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.6

METROPOLITAN STATUS AND REGION: CPS FOOD SECURITY SUPPLEMENT

| Characteristic | Percent Distribution of Low-Income Households | | | | | | | | |
|----------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Metropolitan Status | | | | | | | | | |
| Metropolitan | 64.4 | 66.6 | 63.4 | 60.4 | 61.4 | 60.2 | 63.0 | 63.9 | 62.7 |
| Nonmetropolitan | 35.6 | 33.4 | 36.5 | 39.5 | 38.6 | 39.8 | 36.9 | 36.1 | 37.2 |
| Region | | | | | | | | | |
| Northeast | 16.7 | 18.5 | 15.9 | 18.6 | 18.3 | 18.7 | 13.3 | 13.9 | 13.1 |
| South | 40.6 | 41.9 | 40.0 | 43.3 | 55.1 | 40.4 | 42.1 | 43.7 | 41.6 |
| Midwest | 21.8 | 21.2 | 22.0 | 21.2 | 16.8 | 22.3 | 21.8 | 21.7 | 21.8 |
| West | 21.0 | 18.3 | 22.1 | 16.9 | 9.8 | 18.6 | 22.9 | 20.7 | 23.6 |
| Sample Size | 10,039 | 2,873 | 7,166 | 3,645 | 648 | 2,997 | 5,462 | 1,182 | 4,280 |

SOURCE: April 1995 CPS Food Security Supplement

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.7

HOUSEHOLD INCOME: JANUARY 1992 SIPP

| Characteristic | Percent Distribution of Households Eligible for the FSP | | | | | | | | |
|-------------------------------|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All Eligibles | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Income as % of Poverty | | | | | | | | | |
| 0% | 4.9 | 2.1 | 7.2 | 0.7 | 0.2 | 1.0 | 0.0 | 0.0 | 0.0 |
| 1-50 % | 18.1 | 26.3 | 10.9 | 5.3 | 5.9 | 5.0 | 10.0 | 11.3 | 9.1 |
| 51-75 % | 17.6 | 23.0 | 12.9 | 12.2 | 14.3 | 11.3 | 14.4 | 17.0 | 12.6 |
| 76-100 % | 24.3 | 23.5 | 24.9 | 35.5 | 43.0 | 31.9 | 21.2 | 21.2 | 21.2 |
| 101% or more | 35.2 | 25.0 | 44.0 | 46.3 | 36.7 | 50.9 | 54.3 | 50.4 | 57.0 |
| Sample Size | 4,934 | 2,342 | 2,592 | 1,770 | 599 | 1,171 | 1,864 | 807 | 1,057 |

SOURCE: January 1992 SIPP Eligibility File

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.8

HOUSEHOLD INCOME: SIPP EXTENDED WELL-BEING MODULE

| Characteristic | Percent Distribution of Low-Income Households | | | | | | | | |
|-------------------------------|---|-------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All | | | Poor Elderly | | | Working Poor | | |
| | All | Participant | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Income as % of Poverty | | | | | | | | | |
| 0% | 4.0 | 1.8 | 5.2 | 1.1 | 0.4 | 1.3 | 0.0 | 0.0 | 0.0 |
| 1-50 % | 18.7 | 29.8 | 13.0 | 5.8 | 7.8 | 5.2 | 11.5 | 14.5 | 10.3 |
| 51-75 % | 19.8 | 29.4 | 14.8 | 15.3 | 19.6 | 14.1 | 18.6 | 28.1 | 15.0 |
| 76-100 % | 24.4 | 25.0 | 24.2 | 34.7 | 52.3 | 29.6 | 25.6 | 31.3 | 23.5 |
| 101% or more | 32.8 | 13.9 | 42.6 | 43.0 | 19.9 | 49.6 | 44.1 | 26.1 | 50.9 |
| Sample Size | 5,604 | 1,898 | 3,706 | 1,939 | 435 | 1504 | 2,135 | 606 | 1,529 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Modules.

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.9

HOUSEHOLD INCOME: CPS FOOD SECURITY SUPPLEMENT

| Characteristic | Percent Distribution of Low-Income Households | | | | | | | | |
|---|---|--------------|------------------|--------------|--------------|------------------|--------------|--------------|------------------|
| | All | | | Poor Elderly | | | Working Poor | | |
| | All | Participants | Non-Participants | All | Participants | Non-Participants | All | Participants | Non-Participants |
| Lower Band of Income Range as % of Poverty | | | | | | | | | |
| 0% | 21.8 | 32.8 | 16.8 | 17.5 | 31.6 | 14.1 | 16.1 | 23.6 | 13.8 |
| 1-50 % | 8.7 | 19.1 | 4.1 | 3.4 | 9.2 | 2.0 | 8.9 | 20.4 | 5.4 |
| 51-75 % | 25.5 | 28.7 | 24.1 | 30.9 | 39.1 | 28.9 | 22.0 | 27.3 | 20.5 |
| 76-100 % | 12.6 | 9.8 | 13.8 | 10.5 | 9.8 | 10.6 | 16.3 | 14.0 | 17.1 |
| 101% or more | 31.4 | 9.5 | 41.2 | 37.8 | 10.2 | 44.4 | 36.5 | 14.6 | 43.2 |
| Sample Size | 10,039 | 2,873 | 7,166 | 3,645 | 648 | 2,997 | 5,462 | 1,182 | 4,280 |

SOURCE: April 1995 CPS Food Security Supplement

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.10

SIMULATED FOOD STAMP BENEFITS OF FSP PARTICIPANTS:
JANUARY 1992 SIPP

| Potential Benefit Amount | Percent Distribution of Households Receiving FSP Benefits | | |
|--------------------------|--|--------------|--------------|
| | All | Poor Elderly | Working Poor |
| In Dollars | | | |
| \$10 or less | 6.6 | 15.6 | 6.2 |
| \$11-50 | 10.4 | 27.3 | 6.2 |
| \$50 or less | 16.9 | 43.0 | 12.4 |
| \$51-100 | 11.6 | 21.0 | 10.4 |
| \$101-150 | 16.6 | 20.5 | 16.2 |
| More than \$150 | 54.8 | 15.6 | 61.1 |
| \$151-200 | 10.7 | -- | 14.0 |
| \$201-300 | 27.7 | -- | 16.7 |
| More than \$300 | 16.4 | -- | 18.8 |
| Average Benefit (\$) | 184.6 | 89.0 | 198.2 |
| As % of Maximum | | | |
| 0-25 % | 14.2 | 31.5 | 13.9 |
| 26-50 % | 15.1 | 20.8 | 18.7 |
| 51-75 % | 24.6 | 17.1 | 28.2 |
| 76-99 % | 24.8 | 12.5 | 21.3 |
| 100 % | 20.9 | 17.6 | 17.3 |
| Sample Size | 2,342 | 599 | 807 |

SOURCE: January 1992 Eligibility File

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.11

REPORTED FOOD STAMP BENEFITS OF FSP PARTICIPANTS:
SIPP EXTENDED WELL-BEING MODULE

| Reported Benefit Amount | Percent Distribution of Households Receiving FSP Benefits | | |
|-------------------------|--|--------------|--------------|
| | All | Poor Elderly | Working Poor |
| In Dollars | | | |
| \$10 or less | 3.9 | 12.7 | 1.2 |
| \$11-50 | 12.3 | 37.0 | 3.9 |
| \$50 or less | 16.2 | 49.8 | 5.1 |
| \$51-100 | 13.2 | 21.1 | 12.0 |
| \$101-150 | 15.9 | 15.0 | 19.8 |
| More than \$150 | 54.7 | 14.1 | 63.0 |
| \$151-200 | 13.4 | -- | 15.0 |
| \$201-300 | 26.0 | -- | 30.1 |
| More than \$300 | 15.3 | -- | 18.0 |
| Average Benefit (\$) | 183.6 | 82.7 | 207.2 |
| As % of Maximum | | | |
| 0-25 % | 14.1 | 32.8 | 12.3 |
| 26-50 % | 24.8 | 34.5 | 30.4 |
| 51-75 % | 27.9 | 18.3 | 29.9 |
| 76-99 % | 23.1 | 8.5 | 20.8 |
| 100 % | 7.4 | 4.6 | 4.7 |
| Sample Size | 1,898 | 435 | 606 |

SOURCE: 1991 SIPP Wave 6 and 1992 SIPP Wave 3 core files and Extended Well-Being Module

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.

TABLE C.12

REPORTED FOOD STAMP BENEFITS OF FSP PARTICIPANTS:
CPS FOOD SECURITY SUPPLEMENT

| Reported Benefit Amount | Percent Distribution of Households Receiving FSP Benefits | | |
|-------------------------|--|--------------|--------------|
| | All | Poor Elderly | Working Poor |
| In Dollars | | | |
| \$10 or less | 3.7 | 12.7 | 1.7 |
| \$11-50 | 12.0 | 34.1 | 5.5 |
| \$50 or less | 15.7 | 46.8 | 7.2 |
| \$51-100 | 12.3 | 21.5 | 12.3 |
| \$101-150 | 16.9 | 15.3 | 19.8 |
| More than \$150 | 56.0 | 17.6 | 61.8 |
| \$151-200 | 13.8 | -- | 15.6 |
| \$201-300 | 24.6 | -- | 26.8 |
| More than \$300 | 16.7 | -- | 18.2 |
| Average Benefit (\$) | 181.1 | 84.1 | 198.6 |
| As % of Maximum | | | |
| 0-25 % | 16.9 | 39.7 | 14.8 |
| 26-50 % | 23.7 | 28.7 | 29.0 |
| 51-75 % | 27.7 | 17.2 | 28.8 |
| 76-99% | 19.1 | 7.5 | 17.0 |
| 100 % | 6.1 | 4.2 | 4.1 |
| Sample Size | 2,873 | 648 | 1,182 |

SOURCE: April 1995 CPS Food Security Supplement

NOTE: Household weights are used. The frequency distributions of some variables do not sum to 100 percent due to rounding.