



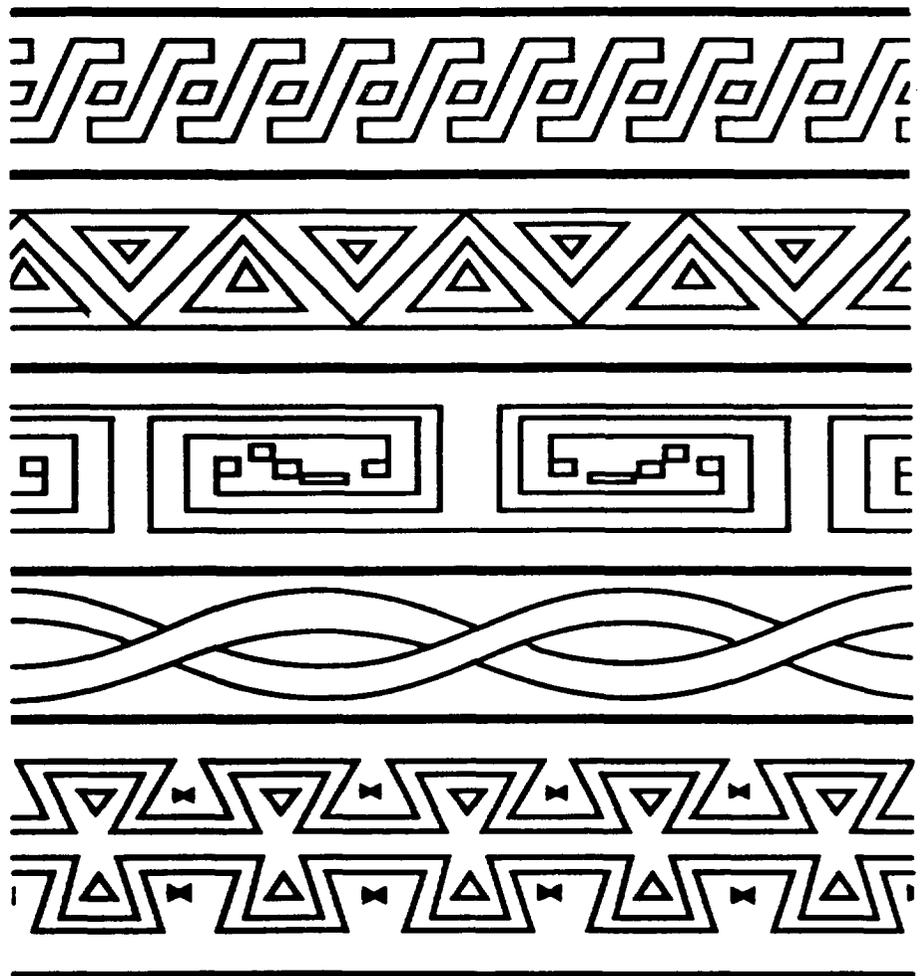
United States  
Department of  
Agriculture

Food and  
Nutrition  
Service

Office of  
Analysis and  
Evaluation

# Evaluation of the Food Distribution Program on Indian Reservations

Volume I: Final Report





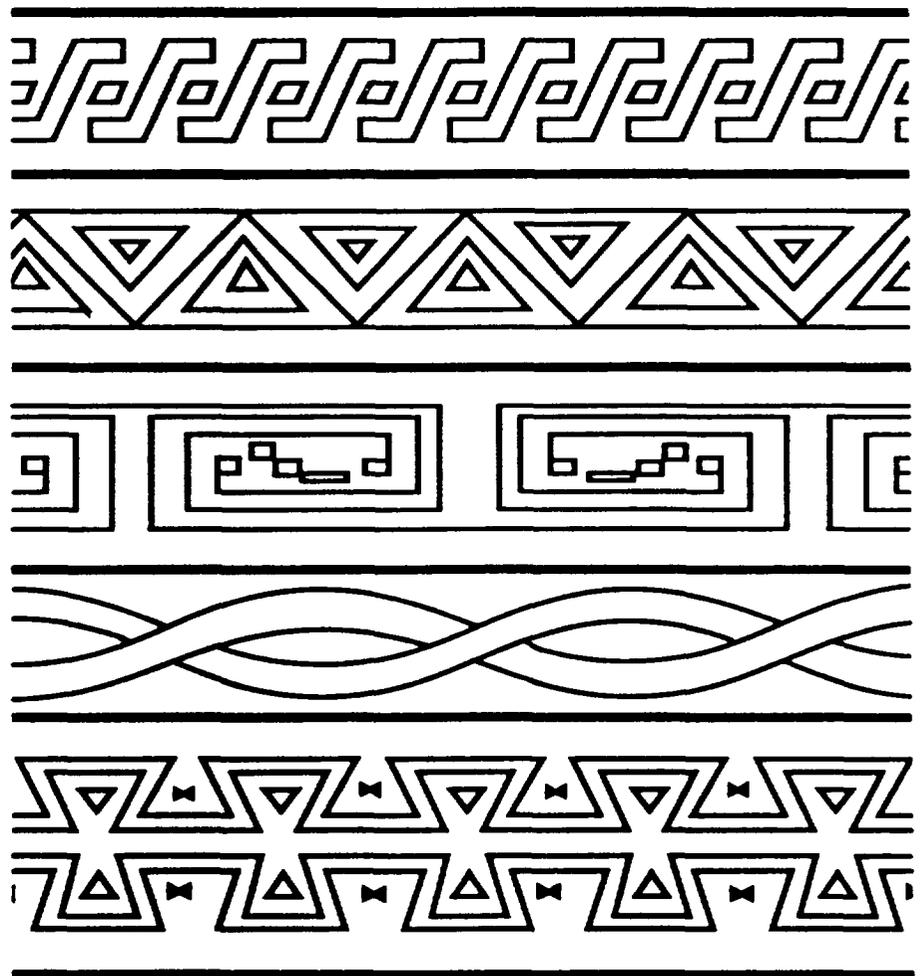
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# Evaluation of the Food Distribution Program on Indian Reservations

Volume I: Final Report



**EVALUATION OF THE  
FOOD DISTRIBUTION PROGRAM ON  
INDIAN RESERVATIONS (FDPIR)**

**Volume I  
Final Report**

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**Food and Nutrition Service  
U.S. Department of Agriculture**

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## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY .....	ES-1
A. Overview of the Evaluation .....	ES-1
Program Background .....	ES-1
Objectives of the Evaluation .....	ES-2
Research Design and Methods .....	ES-3
B. Summary of Findings .....	ES-4
Program Operations .....	ES-4
Profile of Program Participants .....	ES-8
Dietary Needs of Program Participants .....	ES-10
Food Preferences of Program Participants .....	ES-12
Comparison of FDPIR and the Food Stamp Program .....	ES-12
CHAPTER I: INTRODUCTION. ....	I-1
A. Historical Overview .....	I-1
Household Eligibility and Benefits .....	I-2
Program Expansion .....	I-2
Administrative Oversight .....	I-3
B. Objectives of the Evaluation .....	I-3
C. Research Design .....	I-5
Sources of Data .....	I-5
Sampling Design and Methods .....	I-6
Data Collection Procedures .....	I-8
Analysis Methods .....	I-10

	<u>Page</u>
D. Overview of Analysis and Report .....	I-11
Chapter II .....	I-11
Chapter III .....	I-12
Chapter IV .....	I-13
Volumes 2 and 3 .....	I-13
 Chapter II: PROGRAM OPERATIONS .....	 II-1
A. A Model of Program Operations .....	II-1
B. Program Structure and Administration .....	II-4
Organizational Structure .....	II-4
Program Finances .....	II-7
Program Staffing .....	II-12
C. Program Operations and Output .....	II-15
Recipient Relations .....	II-15
Commodity Distribution .....	II-29
Program Integrity .....	II-36
D. Conclusions .....	II-45
Program Structure .....	II-45
Program Staffing .....	II-45
Recipient Relations .....	II-46
Commodity Distribution .....	II-47
Program Integrity .....	II-48
 Chapter III: PROGRAM PARTICIPANTS .....	 III-1
A. A Profile of FDPIR Households and Participants .....	III-2
Household Size and Composition .....	III-3
Characteristics of Individual Participants .....	III-9
Economic Status .....	III-13
Housing Arrangement .....	III-18
Transportation .....	III-21

	<u>Page</u>
B. Dietary Needs and Food Preferences .....	III-26
Nutrition and Health Context of FDPIR .....	III-27
Adequacy of Household Food Supply .....	III-29
Dietary Needs of FDPIR Households .....	III-37
Food Preferences .....	III-46
C. Summary and Conclusions .....	III-59
Participant Profile .....	III-60
Dietary Need .....	III-63
<b>Chapter IV: FDPIR PARTICIPATION AND THE FOOD STAMP PROGRAM .</b>	<b>IV-1</b>
A. Comparison of Participation Requirements in FDPIR and the Food Stamp Program .....	IV-2
B. Comparison of American Indian Participants in FDPIR and the Food Stamp Program .....	IV-3
C. Patterns of Program Participation .....	IV-8
D. Perceptions of FDPIR and the Food Stamp Program Among Current Program Participants .....	IV-11
E. Program Accessibility .....	IV-11
F. Patterns of Food Supplementation Among FDPIR and Food Stamp Participants .....	IV-14
Food Expenditures .....	IV-14
Participation in Other Food Assistance Programs .....	IV-16
Home-Produced Food .....	IV-17
G. Alternative Costs of Providing Food Assistance to FDPIR Participants .....	IV-19
H. Conclusions .....	IV-22

## LIST OF EXHIBITS

	<u>Page</u>
Exhibit I.1:	Sample FDPIR Programs ..... I-7
Exhibit I.2:	Sample Sizes by Size of Program ..... I-10
Exhibit II.1:	Model of FDPIR Program Operations and Impact ..... II-3
Exhibit II.2:	A Typology of FDPIR Program Structure ..... II-6
Exhibit II.3:	Annual Administrative Cost by Functional Categories and Program Size ..... II-8
Exhibit II.4:	Financial Performance by Region for Fiscal Year 1989 ..... II-10
Exhibit II.5:	Matching Food Contributions by Program Size: Percentage of Total Expenditures, FY1989 ..... II-12
Exhibit II.6:	Average Fulltime Equivalent Salaries, Years of Experience, and Number of Employees Filling Most Common FDPIR Staff Positions ..... II-14
Exhibit II.7:	Proportion and Mean Frequency of Certification Activities by Size of Program and Nature of Activity for September 1989 ..... II-19
Exhibit II.8:	Commodity Storage and Distribution Characteristics by Size of Program ..... II-31
Exhibit II.9:	Distribution Methods by Program Size ..... II-33
Exhibit II.10:	Patterns of Availability for Food Items by Region ..... II-35
Exhibit II.11:	Accept Applicant's Statement of Amount of Household Assets ..... II-38
Exhibit II.12:	Methods Used to Verify Earnings of FDPIR Households ..... II-39

	<u>Page</u>
Exhibit II.13: Methods Used to Verify Unearned Income of FDPIR Households .....	II-39
Exhibit II.14: Inventory Discrepancies by Size of Program .....	II-42
Exhibit III.1: Size of FDPIR Participant Households .....	III-4
Exhibit III.2: Household Composition of Sample FDPIR Households (N = 757) .....	III-5
Exhibit III.3: Size and Composition of FDPIR Households (N = 757) .....	III-7
Exhibit III.4: Composition of FDPIR Households Containing a Person Aged 60 or Older .....	III-9
Exhibit III.5: Percentage of FDPIR Participants by Gender and Age (N = 2,441) .....	III-10
Exhibit III.6: Primary Activity of FDPIR Participants During Survey Month .....	III-12
Exhibit III.7: Primary Activity of Adult Male and Female Participants .....	III-13
Exhibit III.8: Primary Activities of Individual FDPIR Participants by Age (N = 2,441) .....	III-14
Exhibit III.9: Gross Income of 827 Sample FDPIR Households as a Percentage of the Poverty Level .....	III-15
Exhibit III.10: Sources of Income Among FDPIR Participant Households .....	III-16
Exhibit III.11: Sources of Income by Composition of Household and Mean Monthly Income (N = 827) .....	III-18
Exhibit III.12: Liquid Assets of FDPIR Participant Households .....	III-18

	<u>Page</u>	
Exhibit III.13:	Housing Arrangements and Mean Gross Income of FDPIR Participant Households . . . . .	III-20
Exhibit III.14:	Housing Arrangements of FDPIR Households Containing a Person Aged 60 or Older . . . . .	III-21
Exhibit III.15:	Median One-Way Distances to Public Agencies and Food Stores for FDPIR Households (in Miles, by Region) . . . . .	III-23
Exhibit III.16:	Percentage of FDPIR Households Driving More Than 20 Miles Each Way to Distribution Point and Food Stores, by Region . . . . .	III-24
Exhibit III.17:	Food Stores Used by FDPIR Participants . . . . .	III-25
Exhibit III.18:	How Often FDPIR Households Have Trouble Getting Where They Need to Go . . . . .	III-26
Exhibit III.19:	Monthly Food Purchases for Consumption at Home and Away by Pattern of Food Purchases . . . . .	III-31
Exhibit III.20:	Supplementary Sources of Food for FDPIR Households . . . . .	III-33
Exhibit III.21:	Participation by FDPIR Households in Other Assistance Programs . . . . .	III-34
Exhibit III.22:	Availability of Food During Survey Month for FDPIR Participant Households . . . . .	III-36
Exhibit III.23:	Nutrition-Related Health Problems Among FDPIR Households . . . . .	III-38
Exhibit III.24:	Nutrition-Related Health Problems Among Individual FDPIR Participants . . . . .	III-39
Exhibit III.25:	Concurrent Nutrition-Related Health Problems Among Adult FDPIR Participants . . . . .	III-40

	<u>Page</u>
Exhibit III.26:	Medically Prescribed Diets Among FDPIR Households ..... III-44
Exhibit III.27:	FDPIR Participant Households Lacking Food Storage/Preparation Resources ..... III-46
Exhibit III.28:	Preferences Within Food Groups: Meats ..... III-48
Exhibit III.29:	Preferences Within Food Groups: Vegetables ..... III-49
Exhibit III.30:	Preferences Within Food Groups: Fruits ..... III-50
Exhibit III.31:	Preferences Within Food Groups: Juices ..... III-51
Exhibit III.32:	Preferences Within Food Groups: Dried Beans ..... III-52
Exhibit III.33:	Preferences Within Food Groups: Cereals ..... III-53
Exhibit III.34:	Preferences Within Food Groups: Three Different Groups ..... III-54
Exhibit III.35:	Preferences Within Food Groups: Fats, Milks, and Sweeteners ..... III-55
Exhibit III.36:	Preferences Within Food Groups: Flours and Hot Cereals ..... III-57
Exhibit III.37:	Expressions of Dislike for Specific Commodities ..... III-58
Exhibit IV.1:	Characteristics of FDPIR and Food Stamp Households ..... IV-5
Exhibit IV.2:	Average Gross Monthly Income of Households Participating in FDPIR and the Food Stamp Program ..... IV-7
Exhibit IV.3:	Household Size for Households Participating in FDPIR and the Food Stamp Program ..... IV-8

	<u>Page</u>
Exhibit IV.4:	History of Program Participation by FDPIR and Food Stamp Households ..... IV-9
Exhibit IV.5:	Travel Distances Each Way for FDPIR and Food Stamp Households ..... IV-13
Exhibit IV.6:	Mean Per Capita Food Purchases and Benefit Levels Per Month for FDPIR and Food Stamp Sample Households ..... IV-15
Exhibit IV.7:	FDPIR and Food Stamp Household Participation in Other Food Assistance Programs ..... IV-17
Exhibit IV.8:	Supplementary Sources of Food for FDPIR and Food Stamp Households ..... IV-18
Exhibit IV.9:	Estimated Food Stamp Allotments for Food Stamp-Eligible FDPIR Households ..... IV-20
Exhibit IV.10:	Comparative Costs of Providing Commodities and Food Stamps to FDPIR Households Potentially Eligible for Food Stamps ..... IV-22

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## ABBREVIATIONS

AFDC	Aid to Families With Dependent Children
BIA	Bureau of Indian Affairs
FDPIR	Food Distribution Program on Indian Reservations
FNS	Food and Nutrition Service
FNSRO	Food and Nutrition Service Regional Office
<hr/> <hr/>	
FSP	Food Stamp Program
GAO	General Accounting Office
GA	General Assistance
IHS	Indian Health Service
ITO	Indian Tribal Organization
QC	Food Stamp Quality Control System
RDA	Recommended Dietary Allowance
SSI	Supplemental Security Income
TEFAP	Temporary Emergency Food Assistance Program
USDA	United States Department of Agriculture
VA	Veterans Administration
WIC	Special Supplemental Food Program for Women, Infants and Children

## **Executive Summary**

# **EVALUATION OF THE FOOD DISTRIBUTION PROGRAM ON INDIAN RESERVATIONS**

## **A. OVERVIEW**

The Food Distribution Program on Indian Reservations (FDPIR) provides supplemental foods to low-income households living on or near Indian reservations. While recognizing a need for assistance among American Indians, Congress was concerned that this need may not be adequately addressed by the Food Stamp Program, the largest and most widely available food assistance program in the United States. The primary concern was that the remote location of many reservations may make it difficult for many American Indians to participate in the Food Stamp Program because they live some distance from a food stamp office and food stores are scarce or far away.<sup>1</sup> Thus, FDPIR represents an alternative to the Food Stamp Program for residents of Indian reservations.

This study presents the first nationally representative profiles of FDPIR participant and program characteristics, and the food-assistance needs and preferences among this particular target population. This executive summary provides a brief historical perspective on the program, describes the objectives and methodology of the evaluation, and summarizes the major findings.

### **Program Background**

**Household Eligibility and Benefits.** To be eligible to receive a commodity package, a household must meet the income eligibility criteria established by Federal legislation, and either reside on an Indian reservation or be a tribal member who resides in the designated service area of a FDPIR program. The income limits used to determine FDPIR eligibility are the same as Food Stamp Program net monthly income limits plus the standard deduction used in determining eligibility for that program. However, FDPIR differs from the Food Stamp Program in that the amount of food an income-eligible household receives is based solely on the number of members it contains, regardless of the specific level of income it has.

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<sup>1</sup>The legislative history leading to the establishment of FDPIR may be found in House Report 95-464, 95th Congress, 1st Session, June 24, 1977 and Senate Report 95-180, 95th Congress, 1st Session, May 19, 1977.

The monthly food package consists of a variety of canned and packaged commodities in such categories as meats, fruits, vegetables, dairy products, grains, and cereals. The Food and Nutrition Service (FNS) uses some surplus foods from the U.S. Department of Agriculture (USDA), but purchases most food specifically for use in FDPIR. Although supplemental in nature, the overall FDPIR food package is designed to provide adequate levels of most nutrients and food energy to participating households.

**Program Administration.** Since its inception in 1977, FDPIR has grown to 105 local programs serving approximately 138,000 persons each month in Fiscal Year 1989. The vast majority of programs are administered by Indian Tribal Organizations (ITOs) under direct agreements with FNS, although some operate under the supervision of an agency of State government.

FNS oversees FDPIR program operations through its network of Regional, Field, and Satellite Offices. FNS also works with other USDA agencies to procure the commodities, process the orders of local programs, and arrange shipments of food to local FDPIR programs. Staff in FNS Regional Offices assess the capability of ITOs to administer FDPIR, review annual plans of operation and budget requests prepared by individual State agencies and ITOs, and provide technical assistance and managerial oversight to local programs.

## **Objectives of the Evaluation**

The specific objectives of the evaluation relate to three sets of issues:

### **Program Operations:**

- describe State agency or ITO administration of FDPIR in terms of written policy, reported practice, and estimated costs; and
- describe program practices that are intended to maximize the efficiency and integrity of the program.

### **Participant Characteristics:**

- describe the demographic and socioeconomic characteristics of FDPIR households; and
- identify dietary needs and preferences of low-income Indians and examine ways in which FDPIR addresses them.

### **Comparison of the contributions of FDPIR and the Food Stamp Program in providing food assistance to American Indians:**

- provide a preliminary comparison of the availability and acceptability of FDPIR commodities versus food stamps for American Indians; and
- explore the unique contributions each program makes in meeting the food assistance needs of this population.

#### **Research Design and Methods**

To address the first set of objectives, we collected information about the structure and operation of FDPIR programs from a variety of sources, including staff interviews, plans of operation, statistical reports that local FDPIR programs routinely submit to FNS, and Management Evaluation (ME) reviews.

To meet the second and third set of objectives, we collected household-level data from the following sources:

- a national probability sample of 827 FDPIR case records drawn from 30 programs;
- interviews with 757 participants whose case records were selected in the sample;
- interviews with a sample of 107 American Indian households participating in the Food Stamp Program in Arizona, Montana, and Wisconsin;
- a probability sample of American Indian households whose food stamp cases were reviewed in the summer of 1986 under the Integrated Quality Control System operated by State food stamp agencies and FNS; and
- a series of focus groups with FDPIR or Food Stamp Program participants.

The sample of FDPIR households was drawn from lists of participants from 30 FDPIR programs (five large, 10 medium-sized, and 15 small programs) that were representative of all 105 local programs. The number of households studied in the evaluation was large enough to produce precise and reliable statistics for the full FDPIR sample and major subgroups such as households living in larger regions and those containing an elderly member.

## B. SUMMARY OF FINDINGS

The following conclusions and summary of findings is organized around the three sets of study objectives pertaining to program operations, program participants, and a comparison of how FDPIR and the Food Stamp Program meet the food assistance needs of American Indians.

### Program Operations

*Larger programs appear to achieve administrative economies of scale.*

Half of local FDPIR programs serve fewer than 250 households per month ("small programs"), and all but five of the remaining programs serve between 250 and 1,200 households per month ("medium-sized programs"). The five "large programs" serve more than 1,200 households per month. Average administrative costs per household ranged from \$614 among small programs to \$287 among large programs. Similarly, the number of participant households per full-time equivalent (FTE) staff position is nearly 100 in large programs, compared to approximately 66 in small programs.

The flat-rate administrative cost guideline established by FNS does not factor in these relative levels of efficiency. All of the programs whose administrative costs exceeded the guideline (30 percent of the value of distributed commodities) serve fewer than 250 households per month.

*Local programs vary widely in the level and type of resources used to meet administrative matching-fund requirements.*

In regions other than the West, about half of local programs meet the 25-percent administrative funds matching requirement. FNS waives the requirement upon acceptance of justification submitted by local programs. Among small and medium-sized programs in the study sample, nearly two-thirds of the match was based on in-kind contributions, in most cases the estimated market value of warehouse and office space. In contrast, larger programs make relatively substantial cash contributions to support the operation of the program.

*Program staffing is not highly specialized in FDPIR, especially in small programs.*

Generally, local FDPIR programs operate with a narrow range of staff functions in the areas of program administration and super-

vision, certification, storage and distribution, and nutrition education. In small programs, it is not uncommon for an individual to serve in all four areas. In fact, one out of five of the sample programs are two-person operations.

The highest-average salary for any staff position in Fiscal Year 1989 was \$21,185 for program directors. Although staff in larger programs tend to be paid more than their counterparts in smaller programs, the generally low level of salaries for these administrative positions seems to reflect conditions that prevail in the labor markets in areas served by FDPIR.

*Local FDPIR programs use a variety of means to enhance the accessibility of the program for participants and potential applicants.*

Most directors expressed the opinion that all potentially eligible households are aware of the availability of benefits and where to apply for them. With a few specific exceptions, most programs' outreach efforts rely on publicizing the distribution schedule each month. At the same time, many programs operate tailgate certification and distribution systems, and make home deliveries of commodities to elderly and disabled participants, to make the program more accessible.

Although program directors do not perceive any language barriers to exist for more than a small percentage of their clientele, all programs make provision for translators to be available (either a staff member or some other person). A few programs require staff to be bilingual.

*The certification process in FDPIR is less demanding for both applicants and certification specialists compared to the Food Stamp Program and some other assistance programs.*

Less information is required of FDPIR applicants than those in other food assistance programs, and fewer items have to be verified and documented. Also, fewer factors must be considered in calculating whether a household meets established FDPIR income limits established for FDPIR. In contrast, the Food Stamp Program involves a check on gross income, a calculation of net income that involves more possible deductions from gross income than in FDPIR, and the calculation of a precise allotment of food stamps for eligible households. Finally, most FDPIR applicants are able to obtain food the day they apply, partly

because regulations permit local programs to grant a one-month certification pending verification of information.

*Nutrition education activities vary widely across programs.*

Federal regulations do not require local FDIIR programs to offer extensive nutrition education services to program participants. Rather, programs are encouraged to coordinate with local organizations that can disseminate food and nutrition information to FDIIR households. The 30 sample programs in this study allocated an average of five percent of their administrative funds to this function, with program support ranging from zero to almost 25 percent of their annual administrative budgets. Over 25 percent of the programs reported no nutrition education budget.

About six out of ten programs reported nutrition education personnel expenditures. With few exceptions, these staff have little or no formal training in either health or nutrition. The focus of nutrition education activities tends to be distributing commodity recipes and cookbooks, and demonstrating how specific items can be prepared. Almost one-half of the programs distribute other general food and nutrition information. However, many programs are unable to maintain a supply of their nutrition education materials, thus limiting the effectiveness of their efforts.

The effectiveness of FDIIR in providing a nutritious diet to participants depends in large measure on the participants' ability to: properly select and use commodity foods; identify potential nutrition-related health problems; and make changes in their households and the community to improve health and nutrition. The development of these skills is particularly important among American Indians because they experience high rates of diet-related health problems, such as diabetes, high blood pressure, and obesity than the general population.

*Local programs use a combination of commodity distribution methods to meet recipient needs and local situations.*

In an effort to reduce participants' difficulty in obtaining commodities, about half of the programs in the study sample use the tailgate distribution method in addition to central warehouse pickup. Another third of the programs also deliver commodities to the homes of a relatively small number of elderly and disabled participants. Very few programs, primarily those serving

small caseloads, rely solely on commodity distribution from a central warehouse location.

While the use of tailgate distribution systems reduces the distance participants must travel to obtain their food package, the selection of items within FDPIR food groups is somewhat reduced, and participants are able to obtain some commodity items only every two or three months. Given the tendency of smaller programs to distribute from a warehouse (or to make home deliveries to elderly and disabled participants), participants who obtain food from small programs may have a greater selection in any given month.

The availability of particular food items also may be affected by market conditions, local ordering practices, and shipping schedules to local programs. Significant variations exist across regions in terms of the availability of specific food items. Notably, in any given month, households in the West were not able to select from as wide a range of items as households in other regions. This may be related to the fact that programs in the FNS Western Region follow different ordering procedures that can cause delays in shipments. Or, it may be an unintended consequence of local programs' effort to enhance the accessibility of the program by extensively using tailgate distribution systems.

*A variety of administrative controls are used to maintain program integrity.*

To maintain the integrity of FDPIR operations, local programs have instituted controls related to the eligibility of participants. First, consistent with program regulations, each household's reported income is routinely verified. However, recognizing the low level of income in areas served by the program, certification specialists generally accept applicants' statements of financial resources. Second, all sample programs make an effort to identify dual participation in FDPIR and the Food Stamp Program, usually through an exchange of participation lists with local food stamp offices. Third, even though a small number of households reportedly received food for which they were not eligible, more than half the sample programs have pursued claims against such households.

Inventory controls are maintained by following inventory procedures prescribed by FNS. Sometimes programs use microcomputers and software provided by FNS. While rates of inventory

discrepancies are low across all programs, large programs are most effective in controlling inventory discrepancies.

Twenty-five of the 30 programs included in the study were visited in Fiscal Year 1989 by either FNS or, in the case of programs administered under the supervision of an agency of State government, by State personnel. Most programs underwent an ME review during the two years prior to this evaluation.

**Profile of  
Program  
Participants**

*Many FDPIR households include elderly persons, and single-parent households constitute a relatively small proportion of the caseload.*

More than one-third (38.9 percent) of all households include an elderly person (that is, someone aged 60 or older), and nearly one in five of the elderly live in an extended family household. The elderly account for 62 percent of the one-person households. Half of the households served by FDPIR contain children, but only one in ten is headed by a single parent with one or more children, and one-fourth are single adults living alone or together. The average FDPIR household contains 3.2 members.

*Adult FDPIR participants have completed an average of ten years of education.*

*About half of FDPIR adults were working, were looking for work, or were laid off and looking for work.*

*FDPIR households are poor by any conventional standard.*

Income levels for FDPIR households are very low. According to their case records, nearly one in ten households, do not have any income. More than one-third of the households have gross income less than or equal to 50 percent of the poverty level established for 1989. Only one in five households have gross income that placed them above the poverty level.

About 31 percent of the participating households receive income from AFDC, Supplemental Security Income (SSI), or General Assistance through the Bureau of Indian Affairs or State welfare agencies. In sharp contrast to the Food Stamp Program, in which approximately 40 percent of the participating households receive AFDC, only five percent or so of FDPIR households receive payments from this program. This latter point reflects an important difference in the pattern of participation for American Indian households that receive this form of public assistance.

The impoverishment of FDPIR households is reflected in their level of liquid assets as well as their income. More than three-fourths of the household case records indicated no cash on hand and nearly as many showed no financial assets of any kind. Among the households that had liquid assets, the average value of their assets was \$221.

*Even though average distances to key destinations are not great, many FDPIR participants experience transportation difficulties.*

Although there is some regional variation in travel distances, the nearest food store is usually within four to five miles of participants' homes, whereas fresh meat and vegetables require driving to a store four to eight miles away. Commodities usually could be obtained at a site located six to nine miles from the participant's home.

More than two-thirds of participant households own a car or truck. Nearly three-fourths of the respondents either travel in their family's car to the store or to the FDPIR office, or get a ride with a friend. About one-tenth of the households have to pay a friend to drive them for shopping or for recertification.

Owning a vehicle does not necessarily eliminate transportation problems. About one out of six (one-tenth of all households in the sample) reported that they very often had difficulty getting where they needed to go because of problems with their cars or trucks. More than half of all households that owned a vehicle reported that they sometimes could not travel because they lacked money to buy gas.

Four out of ten households without vehicles (one out of eight sample households) reported that they very often had problems getting where they needed to go because transportation was not available. Nearly two-thirds said that at least sometimes they lacked money to pay someone to drive them.

**Dietary Needs  
of Program  
Participants**

*In addition to program commodities, FDPIR households rely upon food purchases, home food production, and other USDA programs to meet their dietary needs.*

FDPIR households included in this study spent an average of \$31 per month per household member for food to supplement the commodities they received. About \$24 of this amount was spent at food stores, and 43 percent of the sample households reported that they only bought food at grocery stores. Households that ate at restaurants or bought take-out food generally had higher average incomes, indicating that spending at restaurants and for take-out foods did not detract from purchases at grocery stores.

About one-half of all FDPIR households produce some of their food themselves. These food production activities include growing fruits and vegetables, maintaining livestock for dairy and meat, raising poultry for eggs, and hunting and fishing. These activities varied by region.

Nearly half of the FDPIR households reported participating in other food assistance programs, mostly in other USDA programs. About 70 percent of the households with school-aged children participated in the School Lunch Program and 44 percent of these households participated in the School Breakfast Program. Nearly one in six FDPIR households received benefits under the WIC Program, representing 52 percent of the households with a child aged five or less. Over one-fourth of all households with elderly participated in one or more senior citizen assistance programs.

*Seven out of eight respondents report that their households had enough to eat during the survey reference month, while one out of eight say that they sometimes or often did not have enough to eat.*

Almost one-half of the study population reported that they had enough to eat, but not always the kinds of food they wanted. Another nearly 40 percent responded that they had enough of the kinds of foods that they wanted. About one out of eight respondents reported that they sometimes or often did not have enough food to eat. Four out of five of these households reportedly were without food or money to buy food five or six days per month. Two-thirds of these households also skipped an average of more than four days of meals per month.

Self-reports of inadequate food supplies varied greatly by region. One-quarter of all FDPIR households in the West reported they sometimes or often did not have enough to eat, and they represented three out of five of all FDPIR households reporting this. Nearly three-fourths of the FDPIR households who reported that they had to skip meals were from the West.

*Most FDPIR households report adequate food preparation and storage facilities, with many of the households lacking basic facilities living in the West.*

FDPIR households generally reported having adequate storage and cooking facilities. However, a significant minority lacked at least one of five basic household facilities. One-fifth of the sample reported not having hot running water in their home, 15 percent reported no indoor running water and 7.3 percent of sample reported they had no electricity. About one in ten of the FDPIR households reported having no refrigerator, while 6.3 percent reported that they did not have either an oven or cook-top stove.

The availability of basic housing facilities and food preparation and storage resources also varied by region. Three-fourths of those reporting no indoor running water lived in the West (more than one-third of all western FDPIR households did not have indoor running water). Ninety percent of the FDPIR households who reported having no refrigerator or no electricity were located in the West, representing over one-fifth of all FDPIR households located in that region. Finally, of those who reported they did not have either an oven or cooktop stove, two-thirds lived in the West.

*Over half of all FDPIR households have at least one adult with one or more nutrition-related health problems, and more than one out of four households have at least one member who is supposed to be on a special diet.*

Over half of all FDPIR households reported that at least one adult (a person 16 years old or older) had one or more nutrition-related health problems. More than one out of four households had at least one member who was supposed to be on a special diet. Almost one-third of all households reported at least one person with diagnosed high blood pressure, about one-quarter with a member having diagnosed diabetes and over one-fifth with at least one overweight household member. For diabetes

and obesity, these self-report rates fall below published estimates among American Indians.

focus group participants as health issues of significant concern to their reservations, there also were misconceptions and a lack of information related to improving dietary habits. Participants expressed frustration in changing dietary practices in view of family and community preferences. They also perceived the need for more health and nutrition education. These expressed needs go beyond the scope of nutrition education services required by current Federal regulations.

**Food  
Preferences  
of Program  
Participants**

*Program participants express strong positive preferences for almost all commodity food items.*

Within each of 15 commodity food groups (juices, fruits, vegetables, and so on), respondents indicated their household food preferences. In all, preferences were given for 69 food items. In some cases (among dried beans, for example) these preferences varied by region. It was most notable that the number of respondents indicating a positive preference for any given item almost always exceeded the number expressing dislike for that item. Also, in the vast majority of cases, expressions of dislike represented personal taste (for example, perceiving an item as too sour or too sweet) rather than perceptions of poor food quality. No particular concern other than taste was mentioned by five percent or more of the respondents.

ber 1989, a larger proportion of this group had received benefits for the previous twelve months, compared to FDPIR households interviewed for this study. This is consistent with the fact that AFDC households would tend to have longer spells of participation due to factors related to their need for assistance (specifically, deprivation of parental support), whereas households with earned income would experience shorter (though perhaps repeated) spells of participation.

Nearly half of FDPIR and food stamp households in this study indicated that they participated in both programs at different times. However, American Indian households that leave the Food Stamp Program were more likely to apply for and receive commodities under FDPIR than former FDPIR participants were to apply for and receive food stamps. In fact, this may be due to more lenient eligibility standards in FDPIR, such as a lack of a gross income eligibility standard and the treatment of household resources, particularly vehicles.

*Providing commodities through FDPIR appears to be less expensive than providing food stamps to households who would be eligible.*

Given that American Indian households that receive commodities tend to be smaller and more likely to have earnings, they would be more likely to receive smaller food stamp allotments than the average food stamp household (either Indian or non-Indian), if they were to apply for food stamps. A simulation of food stamp eligibility for FDPIR households indicates that approximately 13 percent would not be eligible because of the gross income limitation and other factors, such as the treatment of vehicles as financial assets. Yet, our simulation suggests that it was less expensive to provide commodities to all the households that participated in September 1989 than it would have been to provide food stamp allotments to the 87 percent estimated to have been eligible for food stamps.

*Travel distances are usually ten miles or less to FDPIR distribution sites, local food stamp offices and food stores.*

Most participants travel ten miles or less to purchase food, or apply for commodities or food stamps. However, as many as one-fourth of the participants in some regions have to travel more than 20 miles each way. The distance most participants must travel to purchase food is not significantly greater than the distance to the commodity distribution point. Also, while the

distance to the local food stamp office is usually greater than the distance to the FDPIR distribution site, the difference is not great.

*The combined availability of FDPIR and the Food Stamp Program provides more flexibility and a better level of service for American Indians than either program would individually.*

The relative acceptability of FDPIR and the Food Stamp Program was addressed by survey and focus group participants. The choice of food stamps versus commodities is largely due to the flexibility and wider selection of foods, including fresh produce. On the other hand, a large segment of FDPIR participants interviewed for this study indicated that they applied for commodities rather than food stamps because they perceived the value of the benefit to be greater. A smaller group of FDPIR respondents felt that the effort to apply for and participate in the commodity program was less than that required in the Food Stamp Program. Thus, each program seems to offer participants distinct and readily identifiable advantages that they deem to be important.

The distinct patterns of participation suggest that the combination of FDPIR and the Food Stamp Program accommodates a diverse set of food assistance needs among different types of American Indian households. For example, regulations that require welfare agencies to allow AFDC applicants to submit a single application for AFDC and food stamps, and that establish categorical food stamp eligibility for many AFDC families, make it easier for American Indians who receive AFDC to also obtain food stamps. However, the availability of FDPIR provides other types of households, such as the elderly, with a relatively simple application process, and therefore, easier access to food benefits.

The simulation of food stamp eligibility suggests that more households—especially small households with elderly members and households with earned income—can be served at less cost by FDPIR than by the Food Stamp Program. On the other hand, the Food Stamp Program appears to be effective in reaching particular types of households (especially AFDC families) for whom the relative costs of obtaining food assistance are lower and their desire for flexibility in selecting foods is greater. Thus, the combination of FDPIR and the Food Stamp Program tends to provide a better level of service for this population than either program would individually.

## Chapter I

### INTRODUCTION

The Food Distribution Program on Indian Reservations (FDPIR) provides supplemental foods to low-income households living on or near Indian reservations. In establishing this program, Congress was concerned that Indian food assistance needs could not be adequately addressed by the Food Stamp Program, the largest and most widely available food assistance program in the United States. The focus of concerns was that the remote location of many reservations may make it difficult for many American Indians to participate in the Food Stamp Program, either because of the distance to food stamp offices, or if certified to receive food stamps, the difficulty of using them due to the scarcity of food stores or the distance to them.<sup>1</sup> Thus, FDPIR represents an alternative to the Food Stamp Program for American Indian and other households living on reservations where access may be a problem.<sup>2</sup>

This report presents the first nationally representative profiles of FDPIR participant and program characteristics, and examines the extent to which the program is meeting food-assistance needs and preferences among this particular target population. This introductory chapter presents a brief historical perspective on the program, describes the specific objectives of the evaluation, and provides an overview of the remainder of the report.

#### A. HISTORICAL OVERVIEW

The Food Distribution Program on Indian Reservations is an outgrowth of the Needy Family Program, established in 1936 to distribute surplus commodity agricultural products to households in need of food assistance. As the geographic coverage of the Food Stamp Program expanded during the 1960s and early 1970s, participation in the Needy Family Program declined. However, in enacting the Food Stamp Act of 1977, Congress established FDPIR as a replacement for

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<sup>1</sup>The legislative history leading to the establishment of FDPIR may be found in House Report 95-464, 95th Congress, 1st Session, June 24, 1977 and Senate Report 95-180, 95th Congress, 1st Session, May 19, 1977.

<sup>2</sup>FDPIR serves *all* income-eligible households (both Indian and non-Indian) residing within participating reservations as well as Indian households living near these reservations. In Oklahoma, only tribal members may participate in FDPIR since there are not distinct reservation lands by which to define program eligibility.

the Needy Family Program, and authorized the United States Department of Agriculture (USDA) to purchase and distribute agricultural products to residents of Indian reservations in an effort to provide them "an opportunity to obtain a more nutritious diet." While the food package is not intended to be the sole source of food for participating households, the volume and variety of foods offered in it is supposed to represent "an acceptable alternative to Food Stamp Program benefits" for low-income persons living on or near Indian reservations.<sup>3</sup>

**Household  
Eligibility  
and Benefits**

To be eligible to receive a commodity package, a household must meet the income eligibility criteria established by federal regulation, and either reside on an Indian reservation or include an adult tribal member and reside in the designated service area of a FDPIR program. The income limits used to determine FDPIR eligibility are the same as Food Stamp Program net monthly income limits plus the standard deduction used in determining eligibility for that program. However, FDPIR differs from the Food Stamp Program in that the amount of food eligible households receive is determined solely by the number of members it contains.

The monthly food package consists of a variety of canned and packaged commodities in such categories as meats, fruits, vegetables, dairy products, grains, and cereals. The Food and Nutrition Service (FNS) pays for the full cost of this food, using some USDA surplus foods as well as foods purchased specifically for use in the program. Although supplemental in nature, the overall FDPIR food package provides adequate levels of most nutrients and food energy to participating households.

**Program  
Expansion**

Since its inception in 1977, FDPIR has grown to 105 local programs serving approximately 138,000 persons each month in Fiscal Year 1989. The vast majority of programs are administered by Indian Tribal Organizations (ITOs) under direct agreements with the Food and Nutrition Service of USDA, although some operate under the supervision of an agency of State government. Program regulations call for States and ITOs to contribute resources to meet 25 percent of the administrative costs of State and local operations, unless there is compelling justification that this matching requirement cannot be met.

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<sup>3</sup>See the discussion of issues preceding regulations proposed in the Federal Register, Vol. 43, No. 237, December 8, 1978.

## **Administrative Oversight**

The Food and Nutrition Service oversees FDPIR program operations through its network of Regional, Field, and Satellite Offices. FNS also works with other USDA agencies to procure the commodities, process the orders of local programs, and arrange shipments of food to local FDPIR programs. Staff in FNS Regional Offices assess the capability of ITOs to administer FDPIR, review annual plans of operation and budget requests prepared by individual State agencies and ITOs, and provide technical assistance and managerial oversight to local FDPIR programs.

### **B. OBJECTIVES OF THE EVALUATION**

The purpose of the evaluation is to provide information about FDPIR households and program operations that FNS can use to improve the efficiency of program operations and to enhance FDPIR's ability to meet the nutritional needs of low-income American Indians. It also seeks to respond to specific mandates from Congress and to expressions of interest in the program from individual members of Congress and others.

First, the Commodity Distribution Reform Act and the WIC Amendments of 1987 (Public Law 100-237) required FNS and agencies administering FDPIR to collect information about the acceptability and usefulness of the commodities to program participants. While program reporting requirements recently instituted by FNS fulfill this requirement, this report provides additional, nationally representative data on these issues.

Second, responses to regulations proposed by FNS in 1987 highlighted the need for more systematic information about local program operations and the characteristics of program participants. FNS had been careful not to impose a substantial reporting requirement on local programs in order to minimize their administrative burden. This policy limited the collection of descriptive program data to only those essential to FNS's oversight responsibilities.

Finally, in response to a request from several members of Congress, the General Accounting Office (GAO) recently conducted a review of FDPIR program operations and the need for food assistance on four reservations. GAO was asked to respond to three broad questions:

1. What governmental and nongovernmental efforts are being made to help fill nutritional needs of Indian households on the reservations?

2. Are the food packages distributed by FDPIR adequate in size and variety to meet the nutritional needs of Indians participating in the program? Are Indian food stamp recipients on the reservations provided with adequate nutrition?
3. What special nutritional needs of Indians are not addressed by the above food assistance programs?<sup>4</sup>

Recognizing the potential overlap in objectives between GAO's research and this study, an effort was made to avoid duplication of data collection efforts, and thereby, to minimize the burden on program participants and administrators by coordinating the two efforts. GAO restricted its study to four reservations and did not include a representative household survey, in order to more quickly respond to Congressional inquiries. GAO recognized that, in some areas, the present study would provide more broadly representative and detailed information. Finally, both studies were designed to be descriptive in nature, and as such, do not directly assess the impact of the program or the nutritional status of participants.

In light of these information needs, this evaluation is organized around three sets of research objectives, one of which primarily required program-level data, one which required household-level data, and a third which required a synthesis of both types of data. As outlined below, the specific objectives of the evaluation relate to three broader sets of issues:

**Program operations:**

- describe State agency or ITO administration of FDPIR in terms of written policy, reported practice, and estimated costs; and
- describe program practices that are intended to maximize the efficiency and integrity of the program.

**Participant characteristics:**

- describe the demographic and socioeconomic characteristics of FDPIR households; and

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<sup>4</sup>GAO, Food Assistance Programs: Nutritional Adequacy of Primary Food Assistance Programs on Four Indian Reservations, GAO/RCED-89-177, September 1989, p. 1.

- identify dietary needs and preferences of low-income Indians and examine ways in which FDPIR addresses them.

**Comparison of the contributions of FDPIR and the Food Stamp Program in providing food assistance to American Indians:**

- provide a preliminary comparison of the availability and acceptability of FDPIR commodities versus food stamps for American Indians; and
- explore the unique contributions each program makes to meeting the food assistance needs of this population.

**C. RESEARCH DESIGN**

This evaluation is based on data that describe FDPIR operational and caseload characteristics at the level of individual programs, and on data that describe characteristics of American Indian households that participate in FDPIR or the Food Stamp Program. Data were obtained from extant data sources (such as plans of operation and FDPIR case records) and from interviews and discussions with both program participants and administrators.

**Sources of Data**

To support analyses related to the first set of objectives, we developed information about the structure and operation of FDPIR programs from a variety of sources, including:

- site visits to 21 programs;
- a series of telephone contacts and exchanges of information with 10 additional programs;
- a systematic review of Fiscal Year 1989 plans of operation for all 105 FDPIR programs and intensive reviews of Fiscal Year 1990 plans for the 30 programs selected for intensive review;
- review of the most recent Management Evaluation (ME) reviews by FNS Regional and Field Office staff for each of the 30 sample programs; and
- a compilation of data from statistical reports that local FDPIR programs routinely submit to FNS.

To meet the second and third set of objectives, we collected household-level data from four sources:

- a national probability sample of 827 FDPIR case records drawn from 30 programs (Case Record Abstraction Data);
- interviews completed with 757 of the participants whose case records were selected in the sample (FDPIR Household Survey);
- a purposive sample of 107 American Indian households who chose to participate in the Food Stamp Program rather than FDPIR (Food Stamp Household Survey); and
- a probability sample of American Indian households whose food stamp case was reviewed in the summer of 1986 under the Integrated Quality Control System operated by State food stamp agencies and FNS (Quality Control Data).

In addition to the data sources outlined above, we sought additional insights concerning the characteristics and perceptions of FDPIR and American Indian food stamp households through focus groups. Three groups of FDPIR household representatives were assembled for this purpose. Also, in an effort to get a clearer perspective on the differences between American Indian FDPIR households and American Indian food stamp participants, we convened two focus groups of American Indians who were participating in the Food Stamp Program.

### **Sampling Design and Methods**

This evaluation employed a multistage stratified sample design that would provide representative data about both FDPIR programs and participants. The program-level analyses required a sample of FDPIR programs representative of all 105 local programs, while the household-level analyses needed a sample representative of the national FDPIR caseload in September 1989. To facilitate analyses on both levels, we first selected 30 local FDPIR programs with probabilities proportionate to the number of households participating in each program. The geographic spread of these sites is shown in the map of the United States, Exhibit I.1.

This first-stage sample of programs was explicitly stratified by size (large, medium and small) and implicitly stratified by FNS region. The five largest programs, representing approximately one-third of all participating households, were all included in the sample. A sample of 25 of the remaining 100 programs was then selected to

**Exhibit I.1**  
**Sample FDPIR Programs**



represent small and medium-sized programs, with small programs serving an average of 250 households or less, and medium-sized programs serving 250-1,200 households in a typical month. Thus, sample sizes for the three program strata were: 5 large programs, 10 medium-sized programs and 15 small programs.

The second-stage selection of households was driven by the objective of creating a self-weighting sample to improve the precision of sample estimates. The number of sample cases allocated to each of the three strata was proportional to the number of participating households in the strata. As a result, all programs in the small or medium-sized strata had approximately the same fixed sample sizes of 12 and 35 respectively. In the large program stratum, it was necessary to vary the sample size for each program because of the great variation in program size. This approach minimizes the risk of over- or underrepresenting households of any given program-size group.

The final stage in drawing the sample FDPIR households involved the selection of individual households within each sample program. In larger programs with a geographically dispersed clientele, it was necessary to sample distribution routes or warehouse facilities prior to selecting a systematic sample of households using September 1989 participant lists provided by each program. In some cases, therefore, the sampling process involved three stages.

To compare American Indians who receive commodities from FDPIR with those who receive food stamps, we also conducted a small exploratory survey of 107 food stamp recipients on three reservations located in Arizona, Montana, and Wisconsin. Respondents in these surveys were randomly selected from listings provided by local food stamp offices. These reservations were among those that had been selected for the FDPIR evaluation.

**Data  
Collection  
Procedures**

The collection of program operations data involved two stages—a series of four preliminary site visits in which we obtained the information needed to assess the completeness and reliability of extant data concerning program operations, and full reviews of the 30 programs selected in the first stage of the study sample. These reviews included interviews with program staff and the examination of extant program data. Due to some overlap between the preliminary site visits and the study sample, a total of 20 programs in the final sample of 30 actually were visited. The survey of program operations among the other ten was conducted by telephone.

The FDPIR household-level data collection effort involved both case record abstractions and personal interviews. Record abstractions were completed for every household selected into the sample of FDPIR participants, resulting in 827 cases. The case record data were manually extracted directly from the FDPIR application forms used by the local programs.

Personal interviews were conducted with the FDPIR head of household or an authorized representative and completed for 757 cases. These interviews were conducted by field supervisors and interviewers trained and supervised by staff from the Research Triangle Institute (RTI). Whenever possible, RTI hired field supervisors and interviewers of American Indian descent. In order to minimize nonresponse rates, RTI implemented extensive preparatory activities prior to the FDPIR household interview:

- a lead letter from FNS was sent to each identified sample member;
- as often as possible, a "neutral" site was identified at which to conduct the interviews<sup>5</sup>; and
- a second introductory letter was sent to each sample member identifying the "neutral site" and offering to reimburse respondents for expenses incurred by being interviewed.

Perhaps because of these efforts no major data collection problems were encountered during the survey and an overall response rate of nearly 92 percent was achieved. As shown in Exhibit I.2, this rate was consistent among households representing each program-size group. Similar procedures in the surveys of food stamp households

Exhibit I.2

Sample Sizes by Size of Program

Size of Program	Number of Programs	Sample Households	Completed Interviews	Completion Rate
Large	5	298	273	91.6%
Medium	10	349	318	91.1%
Small	15	180	166	92.2%
Total	30	827	757	91.5%

**Analysis  
Methods**

Analyses included in this study are largely descriptive in nature. That is, summary tabulations and means (and/or medians) are reported. Standard errors and confidence intervals also are estimated and reported as appropriate. Appendix B of Volume 2 provides a detailed discussion of sampling error and the design effects associated with statistical estimates made in the report.

In order to make accurate estimates for the entire FDPIR population, sample weights consistent with the survey design were applied to the data for each household whose case record was sampled or who participated in the survey. These methods enhance the efficiency of the study, both in terms of cost and statistical precision. This approach required the use of special analysis techniques to ensure that estimates for the total program population were reliable.<sup>6</sup>

The number of households studied in this evaluation was large enough to produce reliable statistics for the full sample and major subgroups such as households containing an elderly member. In some cases, however, it was not feasible to pursue potentially interesting lines of analysis because the sample (or a particular segment of it) was not large enough. Volume 2 provides further details concerning the design of the study, data collection procedures, and the magnitude of sampling error associated with the statistics we report.

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<sup>6</sup>We employed the Survey Data Analysis (SUDAAN) software package developed by RTI.

## **D. OVERVIEW OF ANALYSIS AND REPORT**

The analysis and report are organized according to the three areas of focus—program operations; participant characteristics; and a comparison of how FDPIR and the Food Stamp Program meet the food assistance needs of American Indians. The following discussion provides an overview of the remainder of the report.

### **Chapter II**

The second chapter describes FDPIR program operations. While most of the analyses are focused on describing and comparing patterns of operation, we discuss some of the specific methods used in administering the program that have direct implications for both program efficiency and the quality of service. We begin by describing the conceptual framework that guided our analysis and proceed to a discussion of program structure and administration that explains the roles played by FNS, agencies of State government, and ITOs. We then describe the financing and staffing of local programs. The last section describes three areas of program operations—recipient relations; commodity distribution; and program controls.

The analysis of FDPIR program operations, including that pertaining to structural and organizational characteristics, is based on a sample of 30 programs chosen from the universe of 105 programs. In light of this small sample, it is not feasible to employ formal statistical techniques in this analysis. Instead, our approach compensates for small sample sizes by obtaining detailed information about each sample program. By intensively examining a broad range of issues, in effect conducting 30 case studies, we avoided some of the measurement error associated with surveys involving more narrowly focused and highly structured data collection approaches. Whereas large samples can compensate to some degree for the measurement error inherent in standardized questions and finite response sets, the range and depth of data we collected tend to improve the "precision" of the findings.

The second aspect of program operations addressed in this study were program practices that are intended to maximize efficiency and program integrity. Many of the key measures required for the analysis related to this objective are multivariate constructs representing combinations and comparisons of individual program characteristics.

Examples of the constructs and measures of program efficiency and integrity addressed in this report include:

- program efficiency (such as average total administrative cost per household, and ratio of administrative costs to value of commodities);
- program effectiveness (such as satisfaction of FDPIR participants, and dietary adequacy);
- program equity (such as the accessibility of FDPIR offices and distribution centers within the reservation or service area, and the availability of bilingual staff or materials); and
- program integrity (such as the rate of inventory discrepancies).

### **Chapter III**

The data presented in Chapter III provide, first, a demographic and socioeconomic profile of households that received commodities in September 1989, and second, an assessment of need among FDPIR program participants. A profile of FDPIR households was developed through a detailed analysis of demographic and socioeconomic variables. The statistical tables include weighted frequency distributions, means, and standard errors, cross-tabulated by FNS administrative regions. This detailed information is summarized in a profile of the average characteristics of FDPIR households by region and overall.

An analysis of gross income is useful to examine the level of financial need among program participants. Income and resource data provided in the case record abstractions of the 827 respondent households were utilized for these calculations. Dietary needs of participants are assessed on the basis of self-reported prevalence of nutrition-related health problems and special dietary restrictions. We also examine the availability of food storage and preparation facilities in participants' homes, travel distances to food assistance offices and food stores, transportation resources, and participating households' use of food from various sources other than FDPIR.

The focus of the analysis of FDPIR household food preferences is on specific items within FDPIR food groups, such as meats, vegetables, and cereals. This information provides a measure of participant satisfaction with the program and documents the regional variation which exists in food tastes. Such data may be used to guide commodity food procurement and distribution practices at the local level, and to better meet the food preferences of program participants. We tabulated weighted frequency distributions of: (1) food items wanted but not received; (2) the first and second most pre-

ferred choice for each food type; (3) food items that are disliked; and (4) reasons for disliking an item. Regional variations in food preferences also are discussed.

#### **Chapter IV**

The final set of evaluation objectives seeks to identify dietary needs and preferences of low-income American Indians and to examine the ways in which FDPIR and the Food Stamp Program address them. The broad goal of analyses presented in Chapter IV is to provide a preliminary comparison of the availability and acceptability of the Food Stamp Program and FDPIR to low-income American Indians. This was examined through an analysis of survey data from three sources—the survey of FDPIR households; the sample of 107 food stamp households drawn from evaluation sites in which American Indians can choose to receive food stamps or FDPIR commodities; and a sample of about 285 American Indian households whose food stamp cases were selected for review by the food stamp quality control system in Summer 1986. In addition, information gathered from two focus groups with food stamp recipients and three FDPIR focus groups was examined.

Information obtained from these sources permitted us to compare American Indian food stamp and FDPIR households. Survey data also were used to simulate food stamp eligibility of FDPIR households. This, in turn, enabled us to provide a preliminary estimate of the relative cost-effectiveness of providing food assistance to American Indian households via FDPIR or the Food Stamp Program. Results of these analyses should be viewed with some caution since selected data needed to determine precisely food stamp eligibility were not available. A more indepth cost-effectiveness analysis would be possible only in the context of a full assessment of program impact.

#### **Volumes 2 and 3**

Volume 2 of the report includes detailed descriptions of the research methods employed in this study. The sample design and calculation of two sets of sample weights are discussed, as well as the variation found in the survey data. We describe the data collection procedures, as well as the derivation of analysis measures. We also present a detailed analysis of regional food preferences and the availability of commodity items by region in the fall of 1989. Volume 3 contains copies of the data collection instruments.

## **Chapter II**

### **PROGRAM OPERATIONS**

The Food Distribution Program on Indian Reservations (FDPIR) is unique among Federally subsidized programs in that, most often, it is not administered by an agency of State or local government, but by an Indian tribal organization.<sup>1</sup> In this regard, it is administratively similar to public housing and other programs in which the Federal government works directly with community-based nonprofit agencies to meet particular needs.

At the local level, many FDPIR programs operate on a rather small scale in terms of their costs of operation, the number of staff administering them, and the number of households being served. A few programs, in contrast, serve thousands of households each month. In order to develop program regulations that are responsive to the diversity of program operations, FNS needs information about all types of FDPIR programs.

In this chapter, we report the findings of our evaluation of FDPIR program operations. The first section below describes the conceptual framework for the evaluation of program operations. It is followed by a description of FDPIR program structure and administration that explains the role of FNS, States, and Indian tribal organizations in carrying out the program. The discussion in that section includes program financing and staffing patterns at the local level. The third major section of this chapter addresses three aspects of program operations—recipient relations; commodity distribution; and program integrity. In discussing each aspect of FDPIR operations, we present findings concerning the efficiency and integrity of the program as it has been implemented at the local level.

#### **A. A MODEL OF PROGRAM OPERATIONS**

On the basis of our review of plans of operation and visits to FDPIR programs, we developed a model of FDPIR program operations and impact. Exhibit II.1 summarizes the major components of this

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<sup>1</sup>As we discuss in further detail below, only five of the 50 States are involved in the administration of FDPIR. However, the Food and Nutrition Service (FNS) refers to these five States *and* 86 Indian Tribal Organizations (ITOs) that operate FDPIR programs as "State agencies" in its regulations and routine program communications.

model. Using it as a frame of reference, we describe the context within which individual FDPIR programs are administered.

The broad parameters of FDPIR program operations are set by Federal policy, which affects and ultimately is affected by, the need and demand for food assistance on reservations. The initial establishment of a program is based largely on the need and demand for such assistance by individual Indian tribes. Where programs do exist, socioeconomic and political conditions are expected to have a strong influence on their structure and administrative characteristics.

The socioeconomic and political environment of a program, its administrative structure, and Federal policy affect how it is operated. Our model delineates three functional areas within program operations—recipient relations; commodity distribution; and program monitoring—each of which encompasses several discrete activities. Recipient relations involves outreach, the certification (and recertification) of participants' eligibility, the assessment of food preferences, and nutrition education. Commodity processing includes ordering, warehousing, and distributing commodities. Program monitoring involves special efforts to control fraud and error (for example, dual participation in FDPIR and the Food Stamp Program, and pursuing claims against households), and oversight of local activity by Federal and State officials. Collectively, these three sets of activities comprise local program operations in FDPIR.

The most important product of FDPIR activities is the commodities distributed to eligible American Indian households and other low-income households living on reservations. Some measurable number of households also gain a direct benefit from nutrition education, but other activities, such as outreach and program monitoring, produce only indirect benefits for an indeterminate number of persons. Measurable program outputs provide a basis for constructing indices of efficiency.

The immediate impact of FDPIR is apparent in the rate of participation by eligible households, and their satisfaction with the commodities they receive. It is not within the scope of this evaluation to assess the impact of FDPIR in terms of ameliorating the significant nutrition-related health problems that exist among American Indians. Such an assessment would be complicated by the fact that FDPIR is a supplementary food program, and not the sole source of food for participants. Also, the impact of FDPIR is mitigated by powerful social, economic, and cultural forces that affect American Indians.

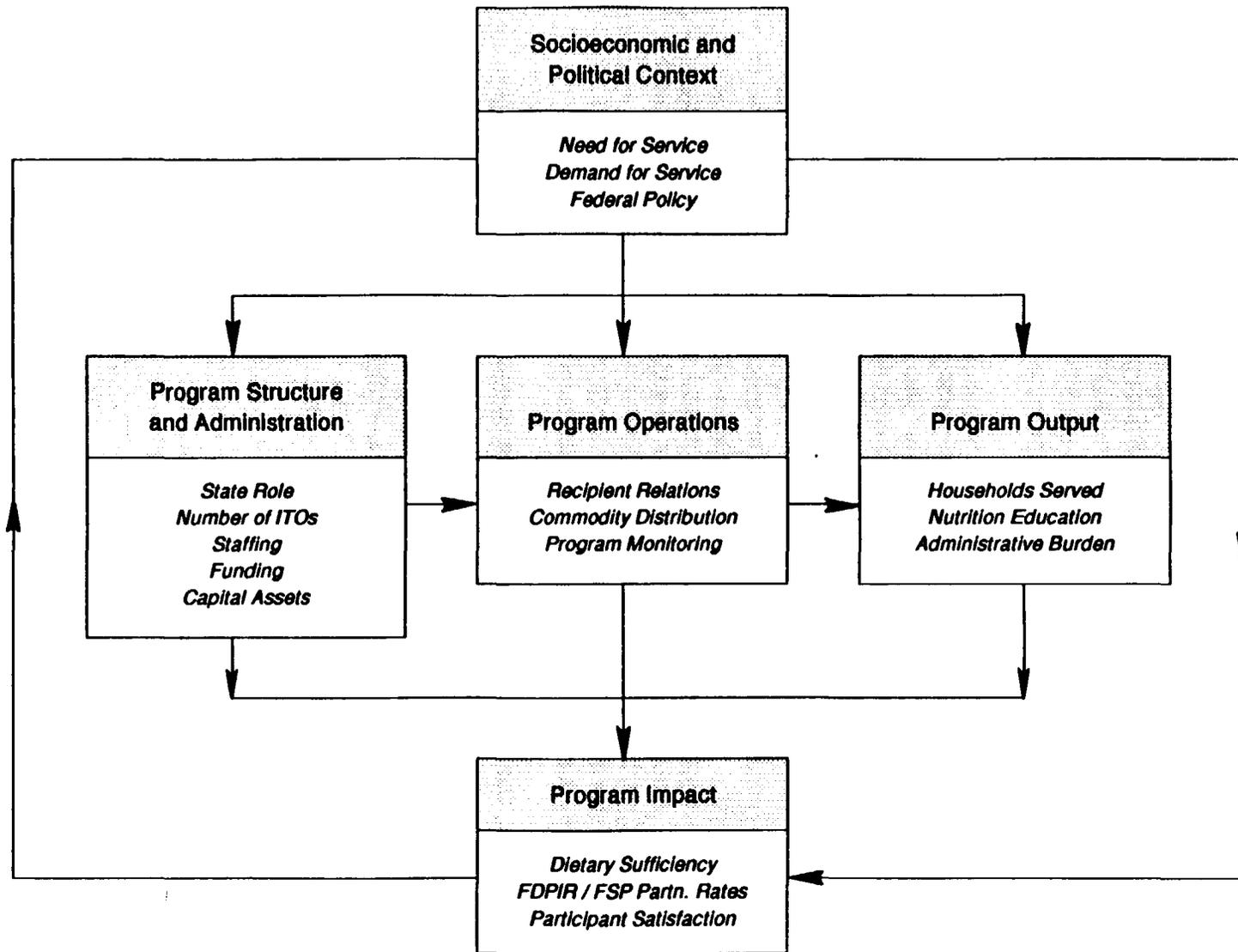


Exhibit II.1  
Model of FDPIR Program Operations and Impact

In the remainder of this chapter, we discuss three of the major components of the model presented in Exhibit II.1—program structure and administration, program operations, and program output. We describe the socioeconomic context within which FDPIR is administered in Chapter III, and offer assessments of its impact on American Indians in both the third and fourth chapters.

## **B. PROGRAM STRUCTURE AND ADMINISTRATION**

This section deals with three aspects of the organization and administration of FDPIR—organizational structure, financing, and staffing.

### **Organizational Structure**

Our review of the 105 FDPIR programs indicated that these programs vary widely in administrative structure, staffing, funding, and capital assets. These important dimensions of program structure and administration are influenced by the socioeconomic and political environment of a program, and create the organizational context within which it operates. It would be useful, therefore, to develop a typology of programs to help summarize and describe the organizational context of FDPIR program operations.

Some of the most important findings of our site visits have to do with the structure of FDPIR programs in terms of the roles of States and ITOs. Five FDPIR programs are classified as State-administered—Montana, Nevada, North Carolina, North Dakota, and South Dakota. During our preliminary site visits, however, it became apparent that, with the exception of Nevada, these States have little direct involvement in certifying households to receive FDPIR commodities, or in distributing commodities to households. Instead, they play an oversight role similar to that of FNS Regional or Field Offices, and provided central warehousing for foods received from FNS and transferred to local reservation warehouses.

We identified three basic models of State-administered programs:

#### **Model 1**

In Montana, North Dakota, and South Dakota, an agency of the State exercises general oversight for the program, provides central warehousing for commodities ordered from USDA, distributes food to reservation warehouses, and works with five to seven tribal governing bodies whose staff certify the eligibility of individual households and distribute food to certified households.

### **Model 2**

In North Carolina, the State agency operates a warehouse from which a single ITO obtains supplies for its own warehouse. Again, the State is responsible for monitoring the administration of the program, but local staff employed by the tribal governing body are responsible for certifying households and distributing food to them, as well as managing all other aspects of program operations, such as nutrition education.

### **Model 3**

In Nevada, the State directly administers the program. Households on ten reservations participate in the program, but tribal governing bodies are not involved in the administration of FDPIR (except in relatively minor roles, such as providing volunteers or temporary paid workers to help with tailgate distribution). Two other ITOs administer FDPIR programs in Nevada that are independent of the State (the same is true of three ITOs in South Dakota).

In all cases except Nevada, individual tribal governing bodies in State-administered programs have responsibilities that are very similar to ITOs that operate the program independently (i.e., certifying households, ordering and distributing commodities, and managing warehouses). The key distinction, again, is that a State agency, not FNS, directly oversees the program.

Given the relative independence of the programs administered by tribal governing bodies under State supervision, we felt it was appropriate for the purposes of this study to treat such programs as the equivalents of those ITOs that operate independently of a State agency. Following this logic, as of September 1989, there were 105 programs operating in the United States, and they fit one of the following categories:

- 86 programs administered independently of a State agency by one or more ITOs;
- one program for several tribes administered directly by a State (Nevada);
- one program administered by a single tribe under contract with a State (North Carolina); and
- 17 programs administered by ITOs under contract through three State agencies (Montana, North Dakota, or South Dakota).

Among the 86 programs administered independently by ITOs, there is further variation in terms of the number of ITOs involved, and the role of each ITO when a consortium is involved. Given that 217 reservations and other Indian land areas are served by 105 FDPIR programs, there are some programs that involve more than a single ITO. There are a few programs in which several ITOs are cooperating in the administration of a program, typically through a service delivery organization that provides other human services in addition to food assistance. In other cases, one tribe may enter an agreement with another nearby tribe to extend service outside its own reservation or service area. For example, one of the large programs provides warehousing and commodity distribution services to a number of smaller tribes who lack warehouse space.

Exhibit II.2

A Typology of FDPIR Program Structure

Number of ITOs Directly Administering the Program	State Government Involvement (number of programs)		
	No Involvement	Direct Administration	General Oversight
No ITO Involvement	N/A	A (1)	N/A
Single ITO	B (59)	C (0)	D (18)
Two or More ITOs	E (27)	F (0)	G (0)

As shown in Exhibit II.2, the two dimensions of State government involvement and the nature of ITO involvement help define the broad parameters of a typology of FDPIR programs. We did not find any evidence that some types of programs defined by this paradigm (for example, C and F) actually exist. Given that Nevada is the only State fitting type A, the other 18 "state administered" programs involve general oversight by an agency of State government in Montana, North Carolina, North Dakota, or South Dakota. In all 18 cases, a single ITO is involved; therefore, they are categorized under D.

Among the 86 programs operated independently of an agency of State government, about two-thirds (59) involve a single ITO. The

remainder of the programs (27) involve a variety of intertribal agreements under which a single program serves as many as 17 different reservations or other Indian land areas. Thus, the vast majority of programs are operated by ITOs under direct oversight by FNS.

There are various reasons why an ITO might choose to structure a local FDPIR program in one way or another. Perhaps most important are administrative capability and warehouse capacity. If there is only a small warehouse on a reservation, for example, it might be to a tribe's advantage to operate a program in cooperation with a State that can provide central warehousing and more frequent deliveries to the reservation than is possible for FNS. Or, if ITOs already are cooperating as a group in the delivery of other human services, FDPIR is simply an extension of those services. Ultimately, FNS decides (based on a proposal submitted to it) whether an ITO, a group of ITOs, or a cooperative arrangement between a State and an ITO provides the administrative capacity necessary to operate a program.

#### **Program Finances**

The programs described above vary considerably in size, and therefore, in their cost of administration. Approximately half of the 105 programs (52) serve, on average, 250 or fewer households per month. The median number of households served monthly is 127. Of the other 53 programs, 48 provide commodities to an average of 250 to approximately 1,200 households each month (with a median number of households equaling 362). The five largest programs serve more than 1,200 each month (a median of 1,822 per month), with the Navajo program averaging 7,456 per month in Fiscal Year 1989 . Together, these five programs served more than one-third (35.9 percent) of the households that participated in an average month in FY1989.

FNS regions tend to be composed primarily of small programs, with fewer medium sized programs, and no more than two large programs. Exceptions to this include the Southwest Region, with 13 medium sized programs and only four small and two large programs, and the Southeast and Northeast Regions, which have a total of five small and medium programs across both regions, with no large programs.

Exhibit II.3

Annual Administrative Costs by Functional Categories and Program Size

FUNCTIONAL CATEGORY	Program Size Category <sup>*</sup> (Number of Sample Programs)							
	Small (15)		Medium (10)		Large (5)		Total (30)	
	Percent- age of Total (%)	Expen- ditures Per House- hold (\$)	Percent- age of Total (%)	Expen- ditures Per House- hold (\$)	Percent- age of Total (%)	Expen- ditures Per House- hold (\$)	Percent- age of Total (%)	Expen- ditures Per House- hold (\$)
Certification	29	171	29	126	22	56	27	137
Storage/Distribution	57	352	52	229	70	207	57	287
Nutrition Education	6	40	5	26	3	8	5	30
Other	10	51	14	61	7	16	10	48
All Functions	102	614	100	442	102	287	99	502

\*Some column percentages do not sum to 100% due to rounding.

The budgets of these programs reflect this variation in size. Among the 30 programs included in the evaluation sample, the smallest administrative budget for FY1989 was \$40,536, while the largest was \$2,037,201 (Federal, State, and local contributions combined). Exhibit II.3 shows how these resources were allocated among the major functional categories of certification, storage and distribution.

As we discuss in a section below, many small programs operate with only two fulltime staff members, sometimes supplemented by part-time workers. While many program activities during a typical month require the efforts of two fulltime employees as well as part-time workers, there are some periods when the workload is lighter because of the small number of households being served. This periodic fluctuation in caseload and program staff appears to occur across small, medium and large FDPIR programs. However, other than regulating the time of part-time staff, it is not possible to make further adjustments in staffing without reducing the small core staff to part-time roles. This would threaten continuity in program operations, and possibly, accountability. Therefore, any overall assessment of program quality and efficiency would need to consider not only the resources used, but also the stability of program operations and the level and quality of service, as well as cost.

The cost figures shown above also indicate that more than half of the cost of administering FDPIR programs is attributable to storage and distribution. This includes warehouse space, the cost of warehouse supervisors and workers, truck drivers for tailgate runs, and equipment such as forklifts. Approximately one-fourth of program costs is related to the certification of households that apply for commodities. Across the sample programs, only five percent of total administrative expenditures is devoted to nutrition education. As we discuss in more detail below, regulations encourage local FDPIR officials to coordinate community nutrition education services for the benefit of their participants, but they are not required to allocate a specific level of program resources for this purpose.

In an effort to monitor administrative costs in the program, FNS uses two measures of financial performance. One measure views administrative costs as a percentage of the value of the commodities distributed by each program. The established guideline is 30 percent and an assessment against this guideline is required as part of the annual budget submitted by each ITO or State. Exhibit II.4 shows that only ten programs failed to meet this guideline in FY1989 and all of them were located in the Midwest or Mountain Plains Regions. The table does not reveal, however, the fact that all of these programs were small. Given the economy of scale shown in Exhibit II.3, this finding indicates that it may be more difficult for smaller programs to meet the flat-rate performance guideline.

Unless they can provide "compelling justification" that circumstances prevent them from doing so, States and ITOs that operate FDPIR programs must provide 25 percent of the financial resources re-

quired to administer the program. FNS may provide more than 75 percent of the funds required to administer a program if, according to §253.9(a) of the regulations, there is a "need to assure that no State agency currently operating the program receives a level of funding that would cause a diminution of program services." As a result, FNS has a good deal of discretion in negotiating budgets with States and ITOs that operate FDPIR programs, and no penalties have been imposed for not meeting the 25-percent matching requirement. The FY1989 data indicate that the requirement is more of a "goal" than a strict requirement. However, FNS does require a strict review of the compelling justification.

Exhibit II.4

Financial Performance by Region for Fiscal Year 1989

Performance Measure	Percentages of Programs, by Region (Number of Programs)					
	Midwest (21) (%)	Mountain Plains (29) (%)	Northeast Southeast (5) (%)	Southwest (19) (%)	West (31) (%)	Total (105) (%)
Percentage of Programs with Administrative Costs Exceeding 30% of the Value of Commodities	28.6 (6)	13.8 (4)	0	0	0	9.5 (10)
Matching Fund Rate:						
20.0% - 24.4%	14.3 (3)	20.7 (6)	60.0 (3)	0	0	11.4 (12)
Less than 20.0%	33.3 (7)	24.1 (7)	0	68.4 (13)	0	25.7 (27)

Our review of FY1989 plans of operation indicated that it was difficult for some ITOs and States to meet this matching funds requirement. For example, 25.7 percent of the programs fell below 20 percent, while 11.4 percent fell within five percentage points of the matching fund rate. Exhibit II.4 shows that more than two-thirds (68.4 percent) of the ITOs in the Southwest Region provided less

than 20 percent of the funds required to administer the FDPIR programs they operated. Although more programs came closer to the 25-percent target figure in the Midwest, one-third fell below 20 percent. Similarly, nearly half of the programs in the Mountain Plains (44.8 percent) could not meet the matching requirement.

It is notable that all programs in the Western Region met both the 30-percent cost guideline and the 25-percent matching requirement, even though, for example, the distribution of programs, by size, is similar to other FNS service regions. However, these measures of efficiency must be considered in relation to (1) the availability of commodity items in the West, and (2) the high level of need in that region. The first point is discussed later in this chapter, while the second is addressed in Chapter III.

Less than half of the matching requirement (defined as the total of cash and in-kind contributions) offered by ITOs and States involved a direct cash outlay. As shown in Exhibit II.5, approximately half (49.6 percent) of the matching requirement across all 30 sample programs was met by the donation of warehouse and office space for use by FDPIR staff. The value of this space was determined from estimates based on prevailing local market rates for leased space, and from Regional FNS officials' judgement of what was reasonable.

Some of the small and medium-sized programs used the value of free labor to meet part of the matching requirement. This involved the use of persons providing community service in lieu of probation, corrections inmates participating in prerelease programs, volunteers, and public assistance recipients involved in work experience programs.

In general, the five large programs made the most substantial cash outlays in meeting the matching requirement. Expenditures for personnel (28.2 percent of the total match) and nonpersonnel costs (23.8 percent of the total match) among the large programs amounted to more than half the matching requirement for this group. In contrast, the medium-sized programs had direct cash outlays amounting to 20.9 percent of the matching requirement, while the value of warehouse space accounted for two-thirds of the match for these ten programs. Small programs were those most likely to rely on in-kind labor to meet the matching requirement.

Exhibit II.5

Matching Fund Contributions  
by Program Size: Percentage of Total Expenditures, FY1989

NATURE OF CONTRIBUTION	Program Size Category (Number of Sample Programs)			Total (30)
	Small (15)	Medium (10)	Large (5)	
<b>CASH</b>				
Personnel Expenditures	20.8	12.1	28.2	24.9
Non-Personnel Expenditures	<u>5.9</u>	<u>8.8</u>	<u>23.8</u>	<u>19.6</u>
Subtotal	26.7	20.9	52.0	44.5
<b>IN-KIND CONTRIBUTIONS</b>				
Warehouse/Office Space	46.4	66.2	46.3	49.6
Labor and Other	<u>19.5</u>	<u>6.5</u>	--	<u>2.8</u>
Subtotal	65.9	72.7	46.3	52.4
<b>INDIRECT CHARGES</b>				
	<u>7.4</u>	<u>6.4</u>	<u>1.7</u>	<u>3.0</u>
Total	100.0	100.0	100.0	99.9

**Program Staffing**

Staffing a local FDPiR program involves a fairly narrow range of positions. The largest programs are distinguished only by the levels of supervisory positions within four broad areas of activity—program administration and supervision; certification; distribution; and nutrition education. In small programs, it is not uncommon for one individual to serve in all four areas, and one-fifth of the programs in the evaluation sample are two-person operations, sometimes supplemented by part-time workers.

Consistent with the financial data described above, we also observed an economy of scale in program staffing in that the number of households per fulltime equivalent (FTE) staff was higher in larger programs. For FY1989, large programs served an average of 99.6 households per month per FTE, while medium-sized programs served 80.2 households per FTE, and small programs served 65.7 households per FTE. Among the small programs, however, there was considerable variation in this measure. For example, the ratio

of households to FTEs ranged from extreme lows of 29 and 31 per FTE in two small programs to an unusual high of 191 in one program. Most ranged from 43 to 76. The range of ratios among medium-sized programs was 50 to 106 households per FTE, and large programs ranged from 65 to 143 households per FTE.

Exhibit II.6 lists the most common staff positions in FDPIR programs included in the evaluation sample.<sup>2</sup> In addition to the program director's position, which often involved certification and warehouse work in the small programs, the positions most often established in these programs were those for certifiers and warehouse workers. Except for two very experienced assistant directors in small programs, this and other supervisory positions were found almost entirely in large and medium-sized programs. The same was true of secretarial positions, although two small programs in the sample had such a position.

One of the noticeable and consistent characteristics observed among FDPIR staff was their longevity working in the program. Among warehouse workers and certifiers, the average incumbent had three or four years' experience. Consistent with our expectations, supervisors usually had even more experience, with the directors of the large programs being the most senior with 11.8 years on average. We were surprised to learn, however, that some part-time workers, persons who work only a few hours per month, also had worked with some of the programs for many years. The relatively long tenure of FDPIR staff cannot be viewed apart from the high levels of unemployment reported on most reservations.<sup>3</sup> Under these circumstances, regular employment, even in a part-time capacity, would be highly valued.

Although requirements for formal training were minimal, supervisory positions generally require relevant work experience, typically involving supervisory responsibility or extensive experience in the type of work being supervised (for example, warehouse work and inventory control procedures). This requirement is consistent with the Federal standards that staff be hired through a merit system, but also reflects the local labor market conditions described above. It

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<sup>2</sup>A detailed listing of job titles is provided in Appendix E of Volume 2 to show how we derived these general categories.

<sup>3</sup>See a report by the Bureau of Indian Affairs, Indian Service Population and Labor Force Estimates, January 1987.

**Exhibit II.6**

**Average Fulltime Equivalent Salaries, Years of Experience, and Number of Employees  
Filling Most Common FDPIR Staff Positions**

POSITION	Program Size Category (Number of Sample Programs)			Total (30)
	Small (15)	Medium (10)	Large (5)	
<b>DIRECTOR</b>				
Salary (\$)	19,441	22,025	24,735	21,185
Experience (Yrs)	7.6	4.0	11.8	5.1
Fulltime/part-time (N)	12/3	10/0	5/0	27/3
<b>ASSISTANT DIRECTOR</b>				
Salary (\$)	20,046	16,767	19,532	18,623
Experience (Yrs)	8.5	5.2	7.2	6.8
Fulltime (N)	2	3	4	9
<b>CERTIFICATION SUPERVISOR</b>				
Salary (\$)	--	15,488	18,102	16,795
Experience (Yrs)	--	8.8	8.0	8.5
Fulltime (N)	0	3	3	6
<b>CERTIFIER</b>				
Salary (\$)	12,504	14,077	14,012	13,515
Experience (Yrs)	2.9	4.3	6.8	4.1
Fulltime (N)	8	15	31	54
<b>WAREHOUSE SUPERVISOR</b>				
Salary (\$)	12,000	14,884	17,582	15,449
Experience (Yrs)	6.0	4.3	7.5	5.0
Fulltime (N)	1	9	11	21
<b>WAREHOUSE WORKER</b>				
Salary (\$)	13,552	12,155	11,552	12,705
Experience (Yrs)	3.8	2.8	3.0	3.3
Fulltime/part-time (N)	(8/6)	(18/1)	(42/0)	(68/7)
<b>SECRETARY</b>				
Salary (\$)	12,562	11,569	10,352	11,249
Experience (Yrs)	6.3	3.1	3.2	4.4
Fulltime (N)	(2)	(3)	(13)	(18)

also suggests that many staff have a considerable investment in their jobs and, regardless of the level of training and experience they bring to their jobs, can develop their skill through experience. The value of this experience was a factor several FNS Regional staff highlighted in describing the administrative capacity of FDPIR programs.

The pattern of average salaries across the positions is consistent with the levels of complexity and responsibility associated with the jobs summarized in the exhibit. Directors and assistant directors received the largest salaries, certification supervisors and certifiers the next largest, and warehouse staff and secretaries received the lowest salaries. It is notable, nevertheless, that the range of salaries—across positions and across programs of different sizes—was not great. For example, warehouse workers averaged \$12,705, compared to \$21,185 for program directors.

### **C. PROGRAM OPERATIONS AND OUTPUT**

In this section, we discuss the three areas of FDPIR program operations identified in the model presented in Exhibit II.1—recipient relations; commodity storage and distribution; and program monitoring. Also, to integrate the discussion, we discuss program output within each of these areas.

#### **Recipient Relations**

The term recipient relations refers to four specific aspects of program operations. These include outreach, certification, nutrition education, and assessing food preferences. We address each in the following sections.

**Outreach.** To ensure that FDPIR reaches potentially eligible non-participants, regulations governing the operation of FDPIR require that local program officials publicize the available benefits and encourage participation in the program. It was not within the scope of this study to determine the degree to which programs were effective in reaching such persons. However, nearly all the program directors interviewed reported that most of the potentially eligible population in their service areas know FDPIR benefits are available and where an application can be filed. Working from this premise, they concentrated their efforts on notifying participants and potential applicants of the monthly distribution schedule. Most programs used fliers for this purpose and posted them in tribal buildings. Several programs were able to have public service announcements made each month on local radio stations, and a few program direc-

tors made occasional presentations on talk shows to inform the community about the program. A number of directors reported that food demonstrations were open to the public and were an effective means of creating a positive image about the program.

The Food Distribution Program on Indian Reservations, as indicated by its name, was created to address the special needs of persons living on or near Indian reservations. Regulations do not stipulate that participants must be tribal members, except for households that live in areas outside a reservation that FNS has authorized local programs to serve. Consistent with these guidelines, we found that households in the study sample reflected a surprising diversity in terms of ethnicity and tribal affiliation. First, only five Oklahoma programs out of the 30 programs in the sample had eligibility requirements that precluded service to non-Indians. These programs are authorized to require tribal membership for eligibility because reservations *per se* do not exist in Oklahoma. Overall, 13.6 percent of the sample household members in our survey of participants were not members of an Indian tribe.

Second, the persons served by the 30 sample programs represented nearly 100 tribes. In fact, the caseloads of 22 of these programs included persons representing at least five different tribal groups.<sup>4</sup> Other than the situation in which ITO eligibility guidelines specifically target tribal members, it appears that programs follow the guideline of offering benefits to any household that is financially eligible and resides within a specified service area.<sup>5</sup> In fact, one program ran newspaper advertisements that did not associate the program with the ITO in order to prevent potentially eligible persons from assuming that they had to be affiliated with a tribe to receive FDIPIR benefits (the staff of this program felt that they already were reaching most tribal members who were in need).

Another dimension of outreach is the potential obstacle to participation posed by language barriers. In only two sample programs did program directors report more than five percent of the households they served as not using English as their primary language. Nevertheless, in every sample program, a member of the staff or

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<sup>4</sup>The extreme tribal diversity in some programs' caseloads is illustrated by two programs, one of which served persons representing 14 tribes and the other which served persons affiliated with 13 different tribes.

<sup>5</sup>Programs that have been authorized to provide benefits in "near areas," that is, areas off the reservation, but nearby, limit eligibility to tribal members who live in those areas.

some other resource person (for example, a tribal official at a nearby office) could assist in translation. In fact, for some programs, speaking the native tongue was a job requirement. It appeared, therefore, that adequate measures had been taken to avoid problems in this area.

**Certification.** The FDPIR certification process involves three phases of activity for certification specialists. These phases include initial certification of households, recertification of households that continue to need assistance at the end of their established certification period, and reassessments of eligibility when changes of circumstance are reported before the end of a household's certification period. The certification process is similar to that in the Food Stamp Program and other means-tested income assistance programs (see the discussion in Chapter IV) in that household size, composition, financial assets, income, and expenses must be ascertained, and in certain cases, independently verified.<sup>6</sup> However, as we discuss in Chapter IV, the procedures followed in FDPIR are not as stringent as those in other programs, and according to focus group comments, seem to result in a simpler application process and a lower burden of participation for eligible households (for example, FDPIR does not require monthly reporting or work registration).

The fact that the amount of FDPIR benefits does not vary according to household income, but depends solely on household size, means that the determination of household income does not have to be as precise as it is in the Food Stamp Program and other income assistance programs. Regulations require verification of gross income; this verification is often completed during the application process or during the preliminary one month certification period. However, no complex calculations of benefit amounts based on income are required. Therefore, once a certification specialist determines that a household's financial resources are within limits (regulations require verification of assets only if the certification specialist feels that an applicant's statement is questionable), the final determination of income-eligibility is straightforward. As a result, program directors reported on average that three-fourths of eligible applicants received food the day they applied, even though very few programs formally processed more than five applications a month as expedited service.

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<sup>6</sup>The procedures used to verify information are discussed below in the section on program integrity. In this section, we focus more on the activities and workload related to certification.

Unlike in the Food Stamp Program, if a household applying for commodities under FDPIR cannot provide documentation to support its stated level of income, the household can be certified for one month pending receipt of the necessary documentation. This procedure makes it possible for certification specialists to determine eligibility within a few minutes after receiving a completed application form. However, staff also reported that they offer informal assessments of potential eligibility to nonparticipating households that call or come into the office to inquire about the program. In other words, the use of a denial rate (e.g., the proportion of denied cases divided by the number of applications in a given month) is not a good performance indicator of administrative effectiveness. The fact that only five of the 30 sample programs reported formally denying more than 10 cases in the study reference month tends to confirm the prevalence of this practice.

The relative simplicity of the FDPIR application (and recertification) process makes it possible for certification specialists to conduct business away from their offices with minimal administrative support (e.g., access to equipment such as telephones, calculators, computers, or typewriters). Nearly half of the sample programs enhanced their accessibility by operating tailgate application and distribution systems in which commodities are carried by truck to different population centers in a program's service area. In addition to receiving commodities at these sites, households may apply for benefits or be recertified to participate. This often enables them to avoid a longer trip to the central office or warehouse.

The common use of tailgate distribution and certification is apparent in Exhibit II.7, especially among large and medium-sized programs which generally serve larger geographic areas. While the majority of applications and recertifications across all sample programs were received and processed at the main office or warehouse, nearly half of the applications and recertifications processed in the large programs were handled at tailgate sites. Also, in a few cases, usually those involving elderly or disabled persons who could not visit the office or tailgate site, applications were submitted by mail and a certification specialist visited the applicant's home to complete the application and obtain additional information.

Exhibit II.7

Proportion and Mean Frequency of Certification Activities by Size of Program  
and Nature of Activity for September 1989

ACTIVITY	Program Size Category (Number of Sample Programs)			
	Small (15)	Medium (10)	Large (5)	All (30)
<b>APPLICATIONS</b>				
	Percentage by Program Size			
Filed at Main Office/Warehouse	92	86	54	66
Filed at Tailgate Site	8	13	46	34
Filed Elsewhere	0	1	0	0
Total	100	100	100	100
(N)	(12)	(91)	(194)	(100)
<b>RECERTIFICATIONS</b>				
Done at Main Office/Warehouse	70	69	52	55
Done at Tailgate Site	30	29	48	44
Done Elsewhere	0	2	0	1
Total	100	100	100	100
(N)	(27)	(103)	(555)	(229)
<b>INTERIM CHANGES*</b>				
	Mean Frequency by Program Size			
Reported by Telephone	1	4	7	4
Mail Report	0	1	6	2
In-Person at Office/Warehouse	1	3	34	13
Report at Commodity Pickup	2	4	23	10
Total	4	12	70	29

\*Due to infrequent occurrence, percentages for interim changes would not be reliable.

The area of greatest activity is the recertification of eligible households. On average, agencies in the study processed more than twice

circumstance during an active certification period. Given that the certification specialist establishes the length of each household's certification period, agencies can control their recertification workload by carefully establishing the length of certification. If more households have long certification periods, fewer recertifications have to be processed for a given number of participating house-

tious in granting long certification periods. However, whatever sense of detachment may exist does not seem to affect the rate at which new applications are denied. The rate of denials in September 1989 was 15.4 percent among small programs, 16.2 percent among medium-sized programs, and 14.5 percent among the large programs.

**Nutrition Education.** The effectiveness of food assistance programs is a function of a variety of factors, including the impact a given program has on the amount of food actually consumed by participants, the quality of food obtained through the program, and the ability of households to optimize their food resources. This last factor is a special concern in FDPIR because many food items provided by the program require preparation, and for those with nutrition-related health problems, special preparation techniques may be necessary. Thus, basic knowledge and willingness on the part of household members to properly prepare food is needed, and will affect the foods' nutritional value. Further, the selection of food for consumption, both from FDPIR and other sources, will influence the nutritional quality of the diet. Finally, the nutritional quality of the diet and selected other lifestyle factors have a profound impact on the health of the program's target population. As a result, local FDPIR programs are required to include selected nutrition education components.

Federal regulations (§253.5 [g]) governing FDPIR specifically require the following activities:

- publicize how commodities may be used to contribute to a nutritious diet and how commodities may be properly stored;
- encourage appropriate organizations, county extension home economists, [Expanded Food and Nutrition Education Program (EFNEP)] aides, and qualified volunteers to provide food and nutrition information, menus, or cooking demonstrations; and
- encourage the dissemination of food and nutrition information designed to improve the nutrition of households on Indian reservations.

The availability and usage of FDPIR nutrition education resources are assessed and discussed below based on data from administrative interviews and program document abstraction at the 30 FDPIR programs, as well as during the three focus group discussions with FDPIR participants. This discussion is followed by a description of the components of an optimal nutrition education program.

**Special Food and Nutrition Concerns.** During structured interviews, program directors confirmed special diet and food concerns related to their recipient population which had been identified in their most recent FDPIR plan of operation. Twenty-nine out of 30 directors reported that diabetes is a disease of special concern in their service area. Eighteen reported hypertension, and 17 reported obesity as nutrition-related health issues of major concern, while 4 each also reported alcoholism and heart disease. High cholesterol and low-iron status were both mentioned once. This is remarkably consistent with focus group discussions, during which diabetes, hypertension and obesity were identified as major health problems in all three discussion groups. Other nutrition-related health problems mentioned in the focus group discussions included alcoholism, heart disease, high cholesterol, cancer and stomach ulcers. As we discuss in Chapter III, these observations are consistent with the scientific literature on American Indian nutrition and health status, as well as the findings of the FDPIR household survey.

**Nutrition Education Expenditures.** In light of the nutrition-related health concerns expressed by program staff, it was surprising to find that eight of the 30 programs, or approximately one-fourth (26.7 percent, representing all sizes of programs and three different regions) reported no nutrition education budget. Four of these same eight programs reported coordinating nutrition education activities with staff of other community programs, although only two reported actual activity being conducted. Another 17 programs reported annual nutrition-education budgets under \$18,075, roughly the starting salary of a nutritionist.<sup>9</sup> Although only two programs actually employed fulltime nutritionists, the remaining five programs reported nutrition education budgets ranging from \$21,308 to \$181,086, with the budget for the largest program more than six times larger than that of the second largest program. On average, the sample programs reported spending about \$30 per household per year on nutrition education, or an average of \$13,132 per program per year. These expenditures represent about five percent of an average annual administrative budget, and they ranged from zero to 24.9 percent for individual programs.

One of the tribes making a substantial financial commitment to nutrition education operates the largest FDPIR program in the country. For FY1989 this tribe committed 8.9 percent of its FDPIR

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<sup>9</sup>Proceedings of the Continuing Education Conference of the Association of State and Territorial Public Health Nutrition Directors. Editor, Mildred Kaufman, MS, RD, June 4-7, 1989, p. 22.

administrative budget to nutrition education and employed one of the two professional nutritionists reported on the staff of the 30 sample programs. It also employed five full-time nutrition aides (no other program reported having such staff). In this one program, more than half (53 percent) of the FDPIR nutrition education budget was derived from tribal resources.

The second largest financial commitment to nutrition education was made by a program with a nutrition education budget of \$28,332 (9.8 percent of its FDPIR administrative budget). The third largest nutrition education budget was reported by the only other FDPIR program that employed a nutritionist. This large program spent 3.3 percent of its operating budget on nutrition education (\$26,583), and employed the nutritionist part-time.

**Nutrition Education Staff Support.** Nearly two-thirds of the 30 sample programs reported personnel expenditures related to nutrition education. As already mentioned, however, only two of these 19 programs reported having nutritionists on staff. Personnel support ranged from \$100 to \$19,923 per year and averaged \$6,424 for the 17 programs reporting nutrition education personnel expenditures (excluding the two programs with nutritionists on staff). In only one program did a nutrition educator from another program receive compensation for services.

The tribes reporting nutrition education personnel expenditures based these expenses on FDPIR staff who provided some form of nutrition education (for example, certifiers who distributed information on food preparation such as recipes and cookbooks). With few exceptions, FDPIR personnel had no formal training in either nutrition or health education.

**Nutrition Education Services.** The nutrition education services provided by FDPIR programs conform to those mandated by Federal regulations outlined above. Of the 30 programs included in the survey, 25 reported distributing nutrition education materials to program participants. Nearly three-fourths of the programs (22) reported that they often coordinated with staff from other programs (for example, home economists from the county extension service or Indian Health Service [IHS] personnel) in sponsoring food preparation demonstrations.

Generally, program directors considered demonstrations less effective than distributing printed material in reaching program participants, with ranges of contact from less than five to 100 percent of

the program population. The directors reported that many more participants were reached through printed food information materials, because they were often distributed during key program activities (i.e., certification and food pickup). Both the distribution of printed nutrition education materials and food preparation demonstrations were considered as program outreach opportunities, and therefore, were available to non-participants in 68 and 73.7 percent of the programs, respectively.

Most commonly, nutrition education materials took the form of recipes and cookbooks. About three-fourths of the programs (76.7 percent) reported providing recipes to FDPIR participants and 53.3 percent reported providing cookbooks at some point in the recent past. Approximately one-fourth of the programs (26.7 percent) reported using newsletters as a means of popular education, and almost one half (46.7 percent) reported using other education materials, such as fact sheets, pamphlets, posters, and videos.

Eleven of the 30 sample programs reported coordinating with existing nutrition education resources on or near the reservations to produce program-specific nutrition education materials. This assistance generally took the form of developing recipes and offering food demonstrations. Sources of this technical assistance usually were staff from local WIC programs, the IHS and the Agricultural Extension Service. Program staff also could use recipes developed by USDA and available through the National Agricultural Library.

**Qualitative Assessment of Nutrition Education Materials.** In our visits to programs involved in the study, we collected nutrition education materials so that a nutritionist on the study team could make a qualitative assessment of them. This assessment included:

- the types of nutrition material used;
- whether these materials provided information on food handling and preparation (i.e., recipes and cookbooks) or were nutrition-based (recommendations for improved diet quality or guidelines for specialized diets);
- the sources of these materials and publication dates (if available).

The results of this assessment are summarized below.

Nutrition education materials generally fit four categories: recipes, cookbooks, newsletters and general food and nutrition information. These materials often were not available to the data collectors during the survey, and the most commonly reported reason for this was that the materials were temporarily out of stock or were no longer available. Thus, nearly a third of the 22 programs reporting that they provided recipes to program participants could not provide copies to data collectors. Fifteen programs reported using cookbooks, although slightly more than half could not provide a copy. Similarly, we could not obtain copies of newsletters from 29 percent of the programs and general food and nutrition information reported to be used was only available in about a third of the cases. Therefore, the following discussion is based only on those materials available for analysis.

For the first three categories—recipes, cookbooks and newsletters—the content was largely the same. In other words, recipes were offered for program participants to better use commodity products, either through individual one-page recipes, cookbooks, or newsletters. Generally, recipes incorporated specific commodity food items (although not always) but provided no nutrition information. Most of these recipes were compiled from multiple sources by FDPIR staff. Assistance from local Agriculture Extension staff, IHS staff, or State agency staff was reported by only four programs.

Some of these materials were innovative. One program provided individual recipes with easy to follow pictures for illiterate or non-English speaking participants. Another program developed a cookbook based on recipes contributed by program participants. A third program contributed to a tribal newsletter that contained articles on good nutrition, diet and health, with recipes which complemented the text.

Fourteen programs reported providing some form of general food and nutrition information not pertaining exclusively to American Indians or FDPIR participants. The majority of this information was in the form of pamphlets or small booklets by USDA, such as "Building a Better Diet" (Program Aid Number 1241), "How Do You Find the Best Meat Buys?", and "Which Brand Is the Best to Buy?"<sup>10</sup>

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<sup>10</sup>USDA also offers FDPIR staff access to the services of the Food and Nutrition Information Center (FNIC), part of the National Agricultural Library. FDPIR staff may use FNIC reference services and receive photocopies of journal articles without cost. FNIC staff nutritionists are available to locate specific facts, suggest organizations that can provide additional information, and conduct computerized literature

Pamphlets provided by IHS were reported to be used by three programs and several reported other sources, such as commodity promotion associations, or health-related associations like the American Diabetes Association. While the presentational quality of most of these reading materials was high, the appropriateness depended partly on the topic's particular relevance to program participants, and more importantly, on participants' ability to read, understand and translate this information into meaningful behavioral change.

**Usual Sources of Nutrition Education.** During focus group discussions, participants reported that their usual sources of nutrition information were: family members most often, then health professionals, followed by magazines, newspapers and television, and finally, the commodity program. Recipes were reported to be used by most participants in all three FDPIR focus groups. Magazines were reported to be the most common source of recipes, with family, friends and FDPIR reported as secondary but significant sources.

As is the case with any segment of the general population, focus group participants were subject to misinformation and misconceptions about food and nutrition. This was apparent in some of the comments offered during the focus group sessions. For example, in one group, diabetes was described as resulting from too much sugar and fat in the diet. Although obesity was identified as a separate nutrition-related health problem, it was not linked to diabetes, nor was losing weight considered an appropriate means of improving the diabetic condition.<sup>11</sup>

**Optimal Nutrition Education Services.** A number of nutrition and health education texts and professional associations have defined optimal nutrition education. For example, in a classic text, *Nutrition and Diet Therapy* by S. R. Williams, components of a successful nutrition education program were described. These included: developing a knowledge of the target population; understanding the reasons for sustained food habits; identifying customs which may need to be changed; meeting individual dietary, social

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searches.

<sup>11</sup>As we discuss in Chapter III, diabetes occurs at very high rates among American Indians, and the overwhelming majority is classified as Type II diabetes. This form of diabetes occurs among genetically susceptible adults and is greatly aggravated by obesity.

and emotional needs; encouraging self-knowledge; involving key family and community leaders, including the household "gatekeeper" of food; developing effective communication skills; and evaluating results.

Applying the principles listed above to the context of a food assistance program, activities that would optimize the impact of nutrition education include:

- identifying potential nutrition-related health problems;
- providing relevant nutrition information to the target population;
- developing and implementing effective programs to assist in modifying food and nutrition behavior; and
- promoting changes within the family and community to support improved health and nutrition behavior.

This latter point is particularly important within the American Indian culture, which is distinguished by the many social ties held among tribal members and strong group cohesion, both within the family and the community. Finally, using nutrition education activities as a means of program outreach may also serve broader programmatic purposes.

**Summary.** The effectiveness of FDPIR in providing a nutritious diet to participants depends in large measure on the participants' ability to: properly select and use commodity foods; identify potential nutrition-related health problems; and make changes in their households and the community to improve health and nutrition. This is of special concern among American Indians because of high levels of diabetes, hypertension, obesity, and other nutrition-related health problems. Also, in order to ensure effective use of FDPIR food items, misinformation and misconceptions about food and nutrition among program participants should be identified and corrected.

Currently, many program participants appear to have limited access to information and education services to develop needed nutrition and health-related skills. Approximately one-fourth of the programs had no nutrition education budget, and only two actually employed nutritionists. In about three-fourths of the programs, staff with little or no training in nutrition distributed one-page nutrition informa-

tion fliers or sponsored group food preparation demonstrations. Staff in as many as half of the sample programs also distributed cookbooks, and about one-fourth of the programs contributed to a newsletter that contained food and nutrition information. Almost one-half of the programs distributed other general food and nutrition information through fact sheets, pamphlets, posters, and videos. However, many programs were unable to maintain a supply of these materials, thus limiting the effectiveness of their nutrition education efforts.

**Assessing Food Preferences.** The Commodity Distribution Reform Act and WIC Amendments of 1987 (Public Law 100-237) require that FNS periodically assess the acceptability of commodities to the program participants who receive them. Consistent with this mandate, FNS developed a survey instrument for FDPIR agencies to use in ascertaining food preferences among participating households. In turn, FNS surveys program administrators to obtain a report on the acceptability of commodities.<sup>12</sup>

Our survey of program operations indicated that approximately three-fourths (73.3 percent) of the sample programs conducted some type of survey of food preferences in FY1989. Approximately two-thirds of these programs asked all participating households to complete a questionnaire, with varying rates of response (response rates are not available). The remaining programs relied on nonprobability samples ranging from 10-50 percent of their caseload. In some of these cases, forms simply were left out at distribution sites for participants to fill out as they chose, more along the lines of a complaint mechanism. However, most of the program directors interviewed for the study felt that informal feedback and "take rates" (the relative rate at which participants requested particular items in making selections each month) were at least as helpful as the information they obtained through participant surveys.

Based on their experience, most program directors identified certain items that their clients clearly preferred or disliked. Preferences for particular items varied across programs and regions, with some directors saying that a particular item was not widely liked while others reported that it was a favorite. For example, some directors reported that they never ordered blackeyed peas, whereas others tried to ensure that they had them in stock each month. Again,

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<sup>12</sup>A summary of findings from such a survey is provided in a report by the Food Distribution Division, FNS, Food Distribution Program on Indian Reservations Commodity Acceptability Survey Analysis, November 1988.

because directors tend to base food orders on their understanding of participants' stated preferences, an item such as blackeyed peas might not be available in some programs, whereas some directors would make it a priority to ensure its availability.

## **Commodity Distribution**

There are four distinct stages in the commodity distribution process. These stages include:

- the ordering of commodities by States and ITOs;
- the acquisition and distribution of commodities to States and ITOs by USDA;
- the storage of commodities received from USDA by States and ITOs; and
- the distribution of commodities each month to households certified to receive them.

We describe each of these four stages below, followed by a discussion of the effectiveness of the commodity distribution process.

**Ordering Commodities.** The program directors interviewed for this study generally reported that recent distribution trends ("take rates") and inventory levels usually provide the basis for ordering commodities from USDA and maintaining a sufficient stock to meet the needs of local participants. These trends are affected by the level of participation in recent months, the commodities being offered by USDA, and local program directors' (or other staff) perception of food preferences.

Orders also must be consistent with Federal requirements that each household be offered a certain amount of food from each of several food groups within the FDPIR package. Additionally, FNS recommends that programs maintain an inventory that would be sufficient to meet the demand for food for three months. Therefore, when program directors submit their orders, FNS Regional officials review them to ensure that each program has the desired three-month supply (but not more than a six-month supply).

**Acquisition of Commodities by FNS.** The availability of specific food items to FDPIR participants also depends on USDA's ability to fill orders submitted by local programs. After receiving and reviewing these orders, staff in all of the Regional Offices except the West refer the orders to FNS headquarters. FNS reviews and approves the orders, and transmits them to a contractor who operates the USDA

warehouse in Kansas City, Kansas, which handles about two-thirds of all the food shipped to FDIIR programs. Officials in the Western Region submit orders directly to the contractor in Kansas, who then routes trucks directly from processors to larger programs in the West and from warehouses in Exeter, California, and Kent, Washington.

The Agricultural Stabilization and Conservation Service (ASCS) and the Agricultural Marketing Service (AMS) of USDA are responsible for procuring commodities that are stored at these central warehouses. ASCS obtains dairy products, grains, oils, and honey, whereas AMS obtains meats, fruits, vegetables, and corn syrup. These agencies must contend with droughts and other weather conditions

that affect the general market, as well as competition from the commercial sector in obtaining food at a reasonable price.

Food orders must be received at the USDA warehouse one month prior to shipment to allow time for loading. The guidelines used by the warehouse contractor call for each order to contain at least 30,000 to 36,000 pounds, approximately the minimal net weight for one truckload. As a result, filling the orders of small FDIIR programs can be problematic because their orders are often smaller than normal production contract volumes and special efforts must be made to assemble and ship such orders.

Given the guidelines followed by the warehouse contractor, some small programs only receive two or three shipments a year. Therefore, unless they have the capacity to store four to six months' inventory, these programs may experience shortages. Such shortages can reduce the nutritional balance of the packages issued to participating households, and if related to ingredients for particular recipes, make it difficult for participants to use effectively the commodities that are available.

To address this potential problem, some smaller programs have contracted with larger programs to order and store commodities. Similarly, the programs operated by ITOs in State-administered systems can rely on large State-owned central warehouses and not

**Storage of Commodities by States and ITOs.** Each program must have space to store the commodities it receives from USDA to distribute to FDIPIR participants. In the program operations survey, we compiled basic information about the storage capacity of each of the 30 sample programs and also developed additional measures of storage space relative to each program's caseload. First, using data from the FNS Form-152 for July 1989, we determined the number of each food item in inventory and divided it by the number of participating households. We then took the average of this figure across all items in stock. This produced a relative measure of inventory volume per participant household that could be compared across different size programs. We then performed a similar series of calculations for the items issued in that month. Together, they represent the total volume of food issued or in storage per household in July 1989. A summary of findings is presented in Exhibit II.8.

Exhibit II.8

Commodity Storage and Distribution Characteristics by Size of Program

CHARACTERISTIC	Program Size Category (Number of Sample Programs)		
	Small (15)	Medium (10)	Large (5)
<b>STORAGE CAPACITY (SQ. FT.)</b>			
Warehouse	3,546	5,222	18,932
Refrigerated Space	102	359	842
Total Storage Space per Household	21	14	10
<b>ITEM INVENTORY PER HOUSEHOLD*</b>			
Mean	3.8	5.4	4.3
Standard Deviation	5.0	8.2	6.5
<b>ITEM ISSUED PER HOUSEHOLD*</b>			
Mean	1.6	1.7	1.8
Standard Deviation	2.4	2.4	3.0

\*The measure of inventory per household is the average across all food items of the average number of units of each item in stock divided by the number of participating households. Similarly, the number of items issued per household is the average across all food items of the average number of units of each item divided by the number of participating households.

Storage capacity appears to be inversely related to the size of programs on the basis of the storage space per household reported above. However, data concerning the size of inventory (measured as the mean number of units in inventory per household for each item in inventory) do not support the conclusion that storage capacity implies larger inventories. In fact, the small programs had the lowest inventory level based on this indicator. This is consistent with the point discussed above that these programs tend to receive fewer shipments because of the minimum size of shipments permitted from USDA warehouses.

The last set of measures in Exhibit II.8 suggest that large programs issued households a larger amount of any given food item. The differences are quite small and subject to measurement error. However, one plausible reason for variation in this measure is that households receive more of a particular item in a food group to compensate for the lack of selections within that group. For example, if only four vegetables were available rather than the full range, participants might be offered and accept more of the available items. While this would not necessarily compromise the nutritional balance of the package, it would result in less variety, and potentially, a lower level of participant satisfaction.

**Distribution of Commodities to Households.** The amount and variety of food issued to participants could be related to the methods a program uses to distribute food as well as to storage capacity. We observed two different distribution systems—tailgate (a truck travels to distribution points away from the warehouse to meet participants) and manual (pickup at a central warehouse). There is some variation in the operation of warehouse distribution sites in that some are "self-service" (participants use shopping carts to select items), whereas FDPIR staff retrieve items for participants in others. Also, some programs do not use one system exclusively, but distribute according to special needs (for example, having nearby participants come to the warehouse, but providing tailgate service to persons living in remote areas).

What is most important with regard to this aspect of program operations is each program's effort to enhance accessibility by minimizing the need for FDPIR participants to travel long distances to apply for and receive commodities. Also, the certification process is affected by the distribution system in that applications and recertifications are routinely processed at tailgate distribution sites.

Exhibit II.9

Distribution Methods by Program Size

Distribution Method	Program Size Category (Number of Sample Programs)			Total (30)
	Small (15)	Medium (10)	Large (5)	
Tailgate and Warehouse	5	6	5	16
Warehouse and Home Delivery	8	2	--	10
Warehouse Only	2	2	--	4

As shown in Exhibit II.9, among all the programs in the study sample, slightly more than half issued food both from a warehouse and by tailgate. One-third issued food primarily at a warehouse, but also made deliveries directly to the homes of households with elderly and disabled members. Only four programs issued food exclusively from a warehouse. It is apparent, therefore, that most programs attempt to make the program more accessible by offering tailgate distribution or home delivery.

The distribution method used in a program appears to be related to the size of the program. All five large programs distributed foods from warehouses and via tailgate. In three of these programs, however, a large majority of households were served at tailgate sites rather than at warehouses. Six of the ten medium-sized programs issued commodities from a warehouse and by tailgate. The remaining four programs in this size group issued primarily from a warehouse, but two of them also made special home deliveries. Among the small programs in the study sample, two-thirds (10) distributed primarily from a warehouse. However, all but two of these programs also provided home delivery. The other five small programs distributed from a warehouse and by tailgate.

This pattern of distribution methods across programs of different sizes seems to be consistent with the findings reported in Exhibit II.9. Specifically, smaller programs tend to distribute from warehouses (or prepare packages for home delivery) rather than by

tailgate and, therefore, are likely to be able to offer a full selection of items each month. Large and medium-sized programs, in contrast, tend to rely more on tailgate distribution. Many of the directors of these programs reported that the limited space on their trucks forced them to restrict selections within food groups available to households in any given month. As a result, only over a cycle of two or three months were they able to offer households an opportunity to obtain every item in the FDPIR package.

We discuss the distance participants must travel to commodity distribution points in the next chapter. However, it is helpful to know at this point that FDPIR participants in small programs reported traveling shorter distances (a mean of 11.5 miles) than sample participants in larger and medium-sized programs (means of 13 and 13.8 miles respectively). Also, these differences in travel distance between participants in small programs and those in large and medium-sized programs are understated. This is because, except for three small programs in which participants had to travel more than 20 miles on average, participants in small programs tended to travel much less than the average of 11.5 miles. In fact, the distance to the commodity distribution point in seven of the 15 small programs averaged five miles or less.

The more widespread use of warehouse distribution among small programs seems appropriate in light of the shorter trips many participants in these programs reported making. Given that large and medium-sized programs tend to rely on the tailgate method, the distances participants in those programs travel are likely to be less than if they had to travel to the warehouse. Based on our visits to 21 of the programs, including visits to tailgate sites, this conclusion seems reasonable.

**Availability of Commodity Foods.** The extent to which households actually have access to the full range of items comprising the FDPIR package serves as a useful test of the effectiveness of the FDPIR commodity distribution process. This access includes both a variety of items within a food group as well as across the full range of FDPIR food groups.

We addressed this issue in the household survey by asking respondents (participants in September 1989) whether each of the approximately 70 items in the FDPIR food package had been available at any time during a three month period (September and the two preceding months). Using data from the household survey, we first examined the percentage of households in the full sample that

reported whether a given item had been available. We then compared this percentage with the percentages reported in each region, noting when a difference was at least five percentage points higher or lower than the proportion for the entire sample.<sup>13</sup> For example, among the entire sample of households, 93.7 percent reported beef had been available in the previous three months. However, a regional breakdown showed that 98.9 percent of the sample households in the Midwest had it available, but only 83.5 percent of the households in the West (results for the other regions ranged from 94.7 to 98.5 percent).

Exhibit II.10

Patterns of Availability for Food Items by Region

Region	Number of Items Not Available During 3-Month Survey Period for Significant Number of Households*
Mountain Plains	9
Southwest	8
West	31
Midwest	11
Northeast/Southeast	16

\*Number of food items which households in each region reported as unavailable, given that the percentage reporting each item was at least five percentage points lower than the total combined percentage of the sample.

Exhibit II.10 summarizes the regional comparisons of food availability. The data pertaining to the Western Region stand out in the table. For example, a significant number of households in the West reported that they had not been able to obtain 31 items out of

<sup>13</sup>Although the standard errors of proportions estimated for the availability of each item vary, five percentage points represents approximately two standard errors in most cases. This reduces the possibility that the differences discussed here are attributable simply to sampling error.

approximately 70 items in the three months preceding the survey (the survey was conducted primarily during October and November 1989). There were only five items (pumpkin, turkey, spaghetti, bread flour, and nonfat dry milk) that were more available to them than persons in other regions. A check of FNS-152 data for July 1989 supported these reports, revealing an absence of inventory for many of the same items reported as unavailable in the survey. The large number of unavailable items in the Western Region suggests that such unavailability is not explained simply by regional differences in food preferences, or by nationwide shortages in food items.

There are several possible sources of this problem in the distribution of FDPIR commodities. First, it may be related to the fact that programs in the Western Region follow different ordering procedures that can cause delays in shipments. Second, it may be an unintended consequence of local programs' effort to enhance the accessibility of the program by using tailgate distribution systems.

#### **Program Integrity**

Program monitoring encompasses a broad set of activities intended to maintain the integrity of the program. They include efforts by local programs to:

- verify information provided by applicants;
- prevent households from receiving food stamps and FDPIR commodities simultaneously (dual participation);
- pursue claims against participants who should not have received commodities; and
- maintain appropriate commodity inventory controls.

The integrity of FDPIR also depends on effective program monitoring and oversight of local operations by staff in FNS Regional and Field Offices, and in State agencies in State-administered programs. Essentially, their responsibility is to ensure that local programs operate in conformance with Federal regulations.

**Verification Methods.** Basing eligibility determinations on accurate information prevents incorrect awards of commodities and maintains the integrity of the program. In this section, we report the responses to a series of questions we posed to FDPIR staff in the survey of program operations concerning methods they employed in verifying reported household circumstances.

Federal regulations require that the income of all FDPIR applicants be verified prior to certifying their households to participate.<sup>14</sup> In addition, program officials may require documentation of any information provided by applicants that is deemed questionable. This applies specifically to household composition and financial assets. While less stringent than requirements in the Food Stamp Program and other assistance programs, these regulations allow local officials the discretion to require full documentation of circumstances prior to making a final determination of eligibility.

The first step in the eligibility determination process is to verify that a household's financial assets are within the limits established by Federal regulations (\$3,000 for households with an elderly member and \$1,750 for all others). As shown in Exhibit II.11, staff in half of the sample programs indicated that they nearly always accepted the applicant's statement of assets and did not attempt to verify them ("nearly always" refers to 90 percent or more of the applications they processed). In contrast, one out of five programs never took the applicant's word and made some effort to confirm the report (for example, asking the applicant to provide a letter from the local bank confirming that they did not have an account with a value in excess of the resource limit).

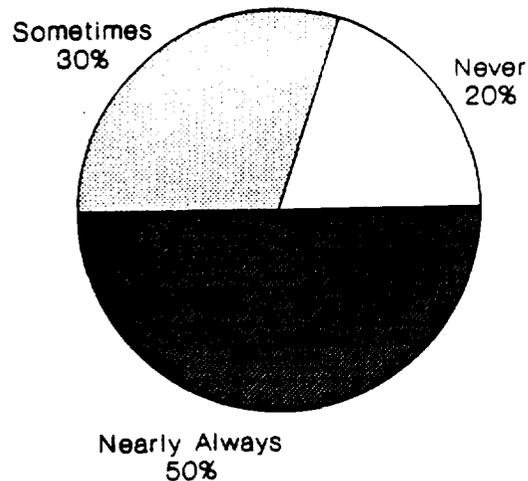
There do not appear to be major differences among small, medium, and large programs in terms of the tendency of certification specialists to require documentation of assets. However, the staff in large programs seem to follow a slightly different pattern than their counterparts in small and medium-sized programs in the verification of earned income. As shown in Exhibit II.12, they tended to rely on formal communications (such as letters from employers) rather than seeing a check stub or calling the employer. They also were more likely to request a copy of an actual paycheck from applicants. Such verification methods may be another indication that staff in larger programs are not as familiar with individual applicants' circumstances, and therefore, must request more in-depth documentation of information reported on the application.

As shown in Exhibit II.13, copies of checks from public assistance agencies, the Social Security Administration, pension funds, and other sources of income not related to current employment were the primary means used by certification specialists to verify this type of

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<sup>14</sup>As we discussed earlier in the chapter, regulations do permit households to be certified for one month pending receipt of information that documents their circumstances, including income.

Exhibit II.11  
Accept Applicant's Statement of  
Amount of Household Assets



income. Award letters were the next most common form of verification. A few programs matched their records (manually or by checking computerized records) with other agencies (especially tribal records) to identify sources of income. Most important to note, however, is that income, unlike financial assets, was routinely verified, as required by Federal regulations.

**Identifying Dual Participation.** Officials in 22 of the 30 sample programs we interviewed received a monthly listing of food stamp households from nearby welfare offices. In these programs, certification specialists reported that they routinely checked this listing, or called if they felt the listing was not up to date, to ensure that FDPIR applicants were not currently receiving food stamps. In the remaining eight programs (these were typically in the smaller programs), staff made a telephone call about every applicant to the local food stamp office. Also, rather than exchange listings, FDPIR and food stamp officials in four agencies sent interagency notices of

Exhibit II.12  
 Methods Used to Verify Earnings of  
 FDPIR Households

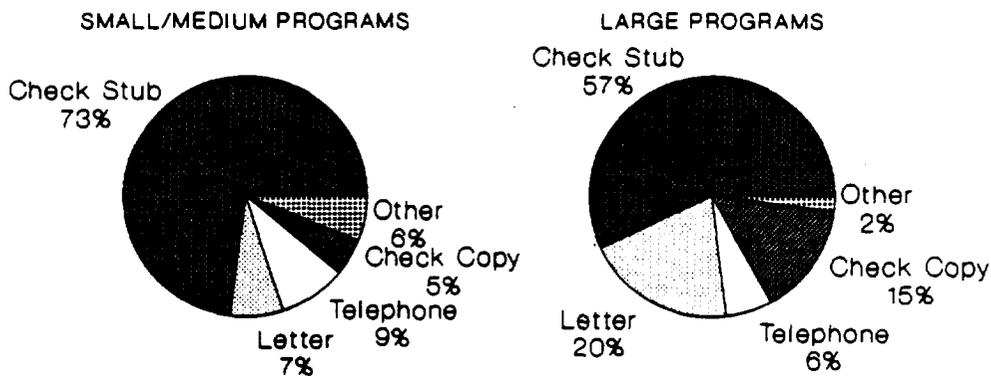
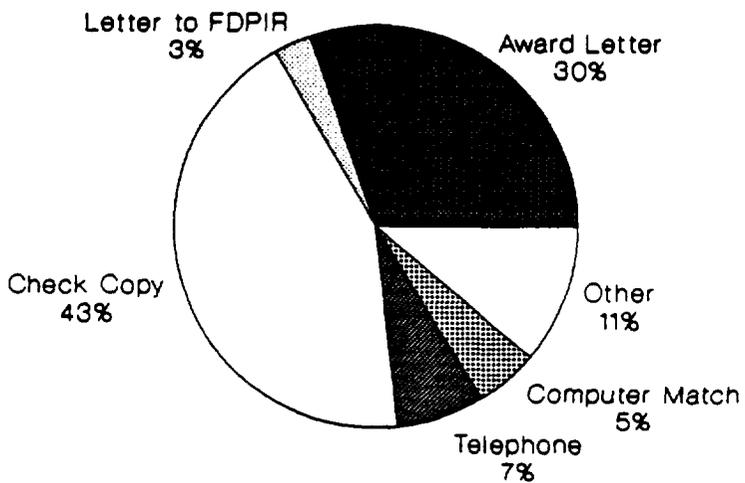


Exhibit II.13  
 Methods Used to Verify Unearned  
 Income of FDPIR Households



case actions related to households that were applying for or terminating participation in one program or the other.

**Claims Against Households and Disqualifications.** When local FDPIR officials determine that a household has received commodities to which it was not entitled, they must attempt to obtain compensation from that household. The following circumstances could result in an overissuance and lead an agency to make a claim against a household:

- incorrect or incomplete information on an application;
- failure to report changes in circumstance that affect basic eligibility; or
- dual participation in the Food Stamp Program and FDPIR.

The amount of the compensation is the estimated cash value of commodities issued in error to the household (the estimates are based on values FNS provides for each commodity).

Sixteen of the 30 programs in the sample filed claims against households in FY1989. Twelve small and medium-sized programs filed 38 claims totaling \$8,940. Four large programs filed 71 claims totalling \$19,111. The average size of a single filed claim was \$257 for all programs. (Precise data on the full range of filed claims sizes are not available, since only composite figures were reported by programs.) The small programs received a grand total of \$661 in repayments of claims. Among the four large programs, only one reported receiving "about \$100 per month". Consistent with these figures, most program directors reported that it was extremely difficult to obtain repayments.

Households that fail to repay the claims made against them may be disqualified from participating in FDPIR. Program directors have some discretion in deciding when to disqualify a household. Some directors told us that many households were financially unable to make repayments, and as a result, they were not inclined to disqualify such households, particularly if the household did not appear to have fraudulent intent. This attitude is consistent with operating guidelines in FNS Handbook 501 (p. 5-21) that permit directors to waive disqualification if it would "cause undue hardship to the household." The directors of 14 programs, including five that did not report filing any claims, indicated that they had disqualified certain households from participating during FY1989. Only one

household was disqualified in each of nine programs. The number in the remaining five programs ranged from two to 17.

**Inventory Controls.** The integrity of a local FDPIR program also could be undermined if commodities were diverted to inappropriate uses by persons other than program participants. To avoid such problems, each program must monitor its warehouse stock, the flow of commodities into it from USDA, and the flow out to FDPIR households. This is accomplished through two types of inventories--a physical inventory (usually taken at the end of each month) and a perpetual inventory. Whereas the physical inventory involves an actual count of items, the perpetual inventory books the distribution of commodities to FDPIR households, damages to goods, and the use of a small amount of commodities for special purposes (e.g., nutrition education demonstrations).

The FNS Form-152 includes the results of a comparison between the physical inventory for a given month and the inventory indicated by records in the perpetual inventory. Two types of discrepancies can arise. First, the physical inventory may reveal more units of stock than the perpetual inventory shows. This could happen, for example, when an issuance clerk undercounts the number of cans of peaches a household has requested and the household fails to detect the underissuance. The tally of household issuance records that is entered into the perpetual inventory would show more cans being issued than actually were received by the household.

The second type of discrepancy occurs when the count from the physical inventory shows fewer units of stock than are indicated by the perpetual inventory. Such a problem could arise, for example, if a can or case of food item were misplaced at a tailgate site and was not put back on the truck and returned to the warehouse. Whereas the first type of discrepancy reveals an unexplained surplus of stock, the second reveals a shortage.

The two types of discrepancies indicate different kinds of operational problems, but both are important and must be controlled. Therefore, for the purpose of our analysis, we simply counted the number of discrepancies that were found in the July 1989 physical and perpetual inventories for each sample program, regardless of type. We then computed two measures to describe the rate of discrepancies. One measure is the mean number of discrepancies per item across all items in inventory during July 1989. As Exhibit II.14 shows, it is an absolute measure that increases with program size. Therefore, to obtain a measure that could be compared across

programs of different sizes, we computed a second measure. It was produced by dividing the first measure by the number of items issued and in inventory in July. In order to avoid reporting extremely small numbers, we report discrepancies per 1,000 units of inventory.

Exhibit II.14

Inventory Discrepancies by Size of Program

DISCREPANCY MEASURE	Program Size Category (Number of Sample Programs)		
	Small (15)	Medium (10)	Large (5)
<b>MEAN INVENTORY DISCREPANCIES PER ITEM</b>			
Mean	1.9	12.3	20.2
Standard Deviation	2.8	59.8	25.3
Coefficient of Variation	1.4	4.9	1.3
<b>INVENTORY DISCREPANCIES AS A PROPORTION OF VOLUME PER</b>			

ing much better control than the average and some much worse control.<sup>15</sup>

In an effort to automate this process, FNS is supporting the development of inventory control software through the Southwest Regional office and providing matching funds for local programs to purchase computer equipment. Four of the five large programs have access to microcomputers, and 11 of the remaining 25 sample programs either own a microcomputer or have access to one owned by the tribe. Therefore, there is a fairly high degree of computerization among local programs. Our contacts with FDPIR staff who rely on computers to maintain the perpetual inventory indicated that this relieves them of a time-consuming and tedious responsibility. Local FDPIR staff involved in the study also reported that microcomputer spreadsheet models developed by FNS Regional Office staff to support commodity ordering made that process much easier for them.

**Program Oversight.** A final area related to program monitoring concerns oversight of local FDPIR programs by FNS and State officials. A considerable degree of oversight is exercised via reports submitted by local programs. One of the most important is the FNS Form 152 which, as described above, summarizes inventory and issuances on a monthly basis, as well as inventory discrepancies. State and FNS Regional staff also review and approve each program's food orders. Finally, and perhaps most importantly, each program must submit an annual plan of operation and budget that follow a standard format developed by FNS.

In addition to monitoring reports from local programs, FNS Regional Office staff, working in cooperation with State personnel in State-administered programs, often visit local programs to determine if they are being operated efficiently and in a manner that ensures the integrity of the program. While the oversight function differs according to the administrative structure of each program, all programs are subject to Management Evaluation (ME) reviews. In addition, each program operated by an ITO in a State-sponsored program is subject to regular oversight by the staff of the State

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<sup>15</sup>The coefficient of variation (CV) within each group provides a standardized measure of the degree of variability within each size group. It is computed by dividing the standard deviation by the mean. The CVs among large, medium and small programs are 1.2, 2.5, and 1.2, respectively. This indicates that there is twice as much variation about the mean level of discrepancies for medium-sized programs as there is among other size programs. Therefore, the mean is not as reliable a measure of the typical discrepancy level for this group of sample programs.

agency responsible for the program. Variation exists, therefore, in who performs the oversight function, how many different agencies are involved, and what type of feedback on performance is provided to local programs. Depending on how the oversight function is carried out, local FDPIR officials may feel a weaker or stronger sense of accountability for how they operate their program.

Over two-thirds of the sample programs (21) reported that they were visited by an FNS staff person during FY1989. Four programs that were not visited by FNS in FY1989 involved programs in State-administered systems, and they were visited by staff from the agency of State government that was responsible for oversight. A total of 17 programs indicated that an ME review had been conducted in FY1989, and most of the sample programs had been reviewed within the past two years.

The content of the ME reviews we examined varied widely, partly due to the idiosyncratic nature of the problems revealed by the reviews, and partly due to the manner in which different reviews had been conducted. Some offered brief and uniformly positive appraisals of program operations, while others meticulously reviewed every aspect of program operations and offered suggestions for improving most of them. Given the different approaches taken in the reviews and the lack of a recent review for nearly half the sample programs, it is not possible to offer a systematic summary of review results.<sup>16</sup>

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<sup>16</sup>While FNS Handbook 501 describes the range of issues to be covered in ME reviews, most State and Regional staff exercise wide discretion in conducting them. One exception is the Southwest Region, which has adopted a detailed topical outline/questionnaire that staff must follow in conducting the review. This degree of standardization is likely to produce findings that are comparable across programs in that Region.

## D. CONCLUSIONS

### Program Structure

One of the most important characteristics of local FDPIR programs is their small size. Half of them serve fewer than 250 households per month, and all but five of the remaining programs serve between 250 and 1,200 households per month. The staffing and administrative cost data presented in this chapter indicate that larger agencies are able to achieve significant economies of scale in serving program participants. Average administrative costs per household in FY1989 ranged from \$614 among small programs to \$287 among large programs. Similarly, the number of participant households per full-time equivalent (FTE) staff position was nearly 100 in large programs, compared to approximately 66 in small programs.

The flat-rate administrative cost standard established by FNS does not factor in these relative levels of efficiency. As a result, all of the programs whose administrative costs exceeded 30 percent of the value of distributed commodities in FY1989 served fewer than 250 households per month. This finding confirms that small programs do not benefit from the same administrative economies of scale experienced by larger programs.

In regions other than the West, half or more of the local programs do not meet the 25-percent administrative fund matching requirement. Among small and medium-sized programs in the study sample, nearly two-thirds of the cash value of the match was based on in-kind contributions, in most cases the reported market value of warehouse and office space. Therefore, while larger programs make relatively substantial cash contributions to support the operation of the program, many small and medium-sized programs depend almost entirely on Federal cash outlays.

### Program Staffing

Staffing local FDPIR programs requires a limited range of staff positions in the areas of program administration and supervision, certification, distribution, and nutrition education. In small programs, it is not uncommon for an individual to serve in all four areas. In fact, one out of five of the sample programs were two-person operations. Most staff averaged at least three years' experience in FDPIR, with certification specialists averaging 4.1 years and directors across the sample programs averaging 5.1 years.

The highest average salary for any FDPIR staff position in FY1989 was \$21,185 for program directors. Although staff in larger programs tended to be paid more than their counterparts in programs that served fewer participants, the generally low level of

salaries for these administrative positions seems to reflect the condition of labor markets in areas served by FDPIR.

**Recipient  
Relations**

Most directors expressed the opinion that all potentially eligible households know about the available benefits and where to apply for them. As a result, with several specific exceptions, they focused outreach efforts on publicizing the distribution schedule each month. However, through efforts such as the operation of tailgate certification and distribution systems, and home delivery of commodities to elderly and disabled participants, they seek to make the program more accessible.

In most cases, local FDPIR programs do not restrict the availability of benefits only to tribal members. The clientele of most local programs includes non-Indians and Indians representing five or more tribes. Where tribal affiliation is used as an eligibility criterion, it is because a program is attempting to serve American Indians whose tribe does not have a reservation, and therefore, cannot use residency within a specified area as a qualifying factor.

Although program directors did not perceive any language barriers to exist for more than a small percentage of their clientele, all programs made provision for translators to be available (either a staff member or some other person).

The eligibility determination process in FDPIR is less demanding for applicants than it is in the Food Stamp Program and other assistance programs. More often than not, the certification specialist accepts the applicant's statement concerning financial resources, but in nearly all cases, they obtain documentation to verify the household's income. Approximately three out of four applicants are able to obtain food the day they apply, partly because regulations permit local programs to grant a one-month certification pending verification of information on the application.

Federal regulations do not require local FDPIR programs to offer extensive nutrition education services to program participants, although the regulations do encourage programs to coordinate nutrition education services with other local programs. The 30 sample programs in this study allocated an average of five percent of the funds for administration to this function, with program support ranging from zero to almost 25 percent of their annual administrative budgets. Even though all FDPIR program directors identified nutrition-related problems as a special concern, over 25 percent of the programs reported no nutrition education budget.

Of the resources provided for nutrition education, most are dedicated to personnel expenditures and the development and dissemination of recipes or food demonstrations. Nutrition education personnel resources, with only two exceptions out of the 30 programs surveyed, are used to partially support program personnel whose primary responsibility is certification or some other program activity. These staff have little or no nutrition or health education training, and the focus of their activities tends to be on distributing commodity recipes and demonstrating how specific food items can be prepared.

The effectiveness of FDPIR in providing a nutritious diet to participants depends in large measure on the participants' ability to: properly select and use commodity foods; identify potential nutrition-related health problems; and make changes in their households and the community to improve health and nutrition. In order to ensure effective use of FDPIR food items, misinformation and misconceptions about food and nutrition among program participants also should be identified and corrected.

### **Commodity Distribution**

Local programs use a combination of three distribution methods in order to accommodate both recipient needs and local situations. About half of the programs in the study sample used the tailgate distribution method, and about a third delivered commodities directly to the homes of a relatively small number of elderly and disabled participants. Very few programs, primarily those serving small caseloads, rely solely on distribution from a central warehouse. This does not seem to impose a burden on participants in these programs because average distances to the warehouse tend to be relatively short. Also, by obtaining food directly from the warehouse (or through home delivery), a participant may be more likely to be able to select from the full range of items in inventory. Program directors reported that choices in any given month tend to be more restricted for participants who receive their food at tailgate sites due to limited space of trucks.

Survey reports indicate that significant variations exist across regions in terms of the availability of specific food items. For example, households in the Western Region are not able to select from as wide a range of items as households in other regions. This was confirmed by administrative reports describing the inventories of programs in that region. There are several possible sources of this problem. First, it may be related to the fact that programs in the Western Region follow different ordering procedures that cause

delays in shipments. Second, it may be an unintended consequence of local programs' effort to enhance the accessibility of the program by using tailgate distribution systems.

**Program  
Integrity**

To maintain the integrity of FDPIR operations, local programs have instituted controls related to the eligibility of participants. First, certification specialists routinely verify reported income. Second, all sample programs made some provision for identifying dual participation in FDPIR and the Food Stamp Program, usually through an exchange of participation lists with local food stamp offices. Third, even though they received few repayments, more than half the sample programs had pursued claims against households that had received food for which they were not eligible.

Inventory controls are maintained by following perpetual and physical inventory procedures prescribed by FNS, sometimes using microcomputers and software provided by FNS. The rate of inventory discrepancies observed among the 30 sample programs suggests that large programs may be more effective in controlling this problem, and that medium-sized programs may be most susceptible to it. It could be the case that the size of medium-sized programs and the resources available to them result in their applying procedures similar to those used in small programs to circumstances that are more characteristic of large programs.

Finally, all but five of the 30 programs included in the study had been visited in FY1989 by either FNS or, in the case of programs supervised by an agency of State government, by State personnel. Most of the programs received a formal Management Evaluation (ME) review by FNS during the two years prior to the program operations survey. The findings of reviews that had been done varied widely, due partly to the range of problems they revealed and partly to different approaches State and Regional personnel followed in conducting the reviews.

## Chapter III

### PROGRAM PARTICIPANTS

Most of the food assistance programs administered by the Food and Nutrition Service (FNS) are means tested, and some are targeted toward particular segments of the low-income population. For example, some programs serve only older persons, while others address the needs of pregnant women and infants. The Food Distribution Program on Indian Reservations (FDPIR) is unique in that it is targeted to residents of rural Indian reservations, primarily American Indians.

We have discussed some characteristics of the FDPIR target population in the preceding chapters. Low-income American Indians share many of the same problems facing other persons who live in the rural United States, such as declining job opportunities. The Bureau of Indian Affairs (BIA) estimated 775,329 Native Americans to be living outside Alaska in 1987.<sup>1</sup> Based on this population estimate, one-third (32.7 percent) received food stamps and approximately 17.3 percent received commodities through FDPIR.<sup>2</sup> Given that as many as *half* of this group were receiving food assistance under one program or the other, the extent of need among American Indians is widespread.<sup>3</sup> Therefore, it is important to learn more about the households and individuals being served by FDPIR so that the program can address special, and perhaps diverse, needs of participants effectively.

This chapter is divided into sections that address two broad sets of issues. The first section provides a demographic and socioeconomic profile of households and individuals who received commodities in September 1989, with the focus on characteristics that may be related to their level of need, such as employment status, educational attain-

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<sup>1</sup>This estimate is drawn from a report by the Bureau of Indian Affairs, Indian Service Population and Labor Force Estimates, January 1987, Table 1.

<sup>2</sup>The estimate of American Indian food stamp participants is based on tabulations from the 1986 food stamp Quality Control data base. The estimate of FDPIR participation is the average monthly number of participants for fiscal year 1987.

<sup>3</sup>As we discuss in Chapter IV, approximately 11.5 percent of the households receiving commodities in September 1989 had received food stamps within the past 12 months; therefore, the two estimates cannot simply be summed to yield an unduplicated count of American Indian households that received assistance under one or the other program.

ment, and access to transportation. The second section examines dietary needs and food preferences among program participants. The survey conducted for this study provides new information about the need for special diets and the prevalence of nutrition-related health problems among FDPIR participants, and the acceptability of specific items available through the program.

#### **A. A PROFILE OF FDPIR HOUSEHOLDS AND PARTICIPANTS**

The analysis of patterns of participation in public assistance often focuses on the composition of participant households. For example, the high incidence of female-headed households in the Aid to Families with Dependent Children (AFDC) program has focused attention on problems such as adolescent pregnancy that tend to increase participation by this segment of the population in that program. Similarly, certain groups' overall level of participation in transfer programs, such as older persons in the Food Stamp Program, has been examined by researchers and policy analysts to assess whether specific barriers to participation exist for them.

Given the lack of information about households and individuals who receive commodities under FDPIR, we recognized that it would be helpful to have more basic information about their characteristics. To obtain this information, we collected data from two sources about households that received commodities from FDPIR during September 1989, the reference month for the study. The first source was the case record of each of 827 households selected for this study. The other source of data was a survey in which interviews were conducted with respondents representing 757 of those households.

By design, the collection of data from these two sources was complementary. Consistent with the information requirements of the FDPIR eligibility determination process, household case records contain fairly detailed information about financial circumstances, but very little information about individual household members other than their ages. As a result, we conducted the survey of FDPIR households to provide more detailed information about each household member, relationships among the members, and household circumstances related to the need for food assistance.

The following profile of FDPIR participants draws information from both data sources. It is divided into five topical areas—household size and composition, characteristics of individual participants, economic status, housing, and transportation.

## Household Size and Composition

The concept of a "household" under FDPIR refers to a group of individuals who normally purchase food and eat together, and whose financial and other circumstances meet the eligibility criteria of the program. It is possible, therefore, for more than one FDPIR household (or a FDPIR household and a non-FDPIR household) to occupy the same residential unit.

On the basis of data obtained directly from FDPIR participants in the household survey, we determined that persons not included in the FDPIR case record (which defines the composition of the FDPIR household) lived in about five percent of the sample households. These persons were reported to be purchasing food and preparing meals separately from the group of persons who constituted the FDPIR household. As such, they were not counted by FDPIR certification specialists in establishing the household size on which FDPIR benefits were allocated.

Given the different manner in which household composition was recorded in the case record, the survey report provided a more complete depiction of the composition of households in which one or more members received assistance from FDPIR in September 1989. For example, whereas the case records indicated that nearly one-third of participant households (32.6 percent) contained only one person, responses to the survey suggested that approximately one-fourth (23 percent) of the households actually consisted of persons who lived alone. In our discussions below, we base our findings related to household size on these survey report data.

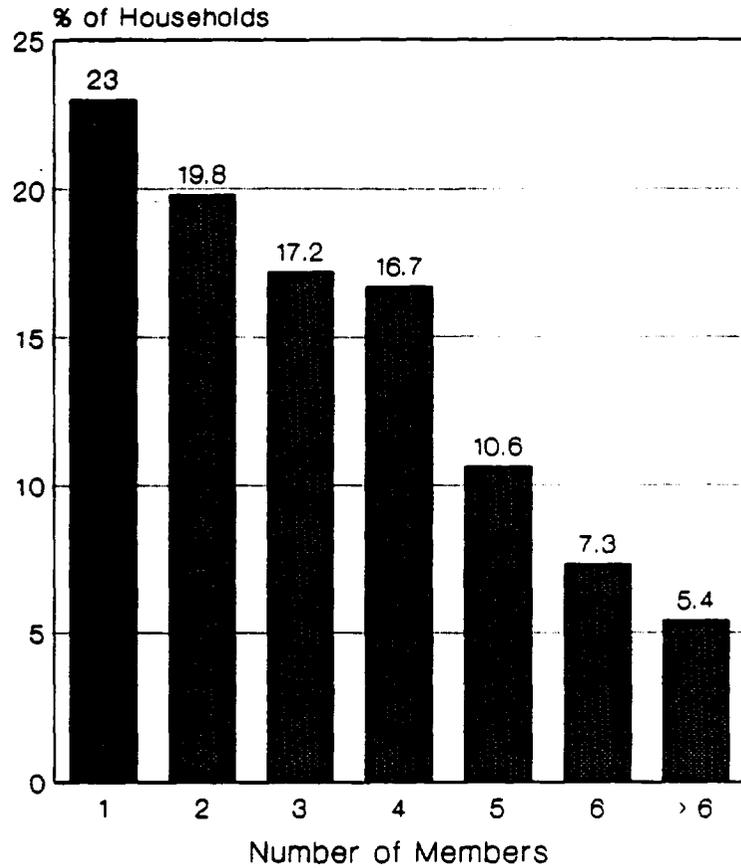
As shown by Exhibit III.1 (again, based on the survey data), one-person households constituted the largest segment of the FDPIR caseload. Approximately one in five households in the survey had two members, and one-third had three or four members. Nearly one-fourth of the FDPIR households who were interviewed had five or more members.

This distribution of household sizes is not readily comparable to that for other programs because those data also omit household members who do not receive program benefits. However, the average of 3.2 members per FDPIR household compares to 3.5 members for all low-income families in the United States in 1987.<sup>4</sup> Also, only half of the

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<sup>4</sup>100 percent of the Federal Poverty Guidelines, U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-60, No. 163, Poverty in the United States: 1987 (Washington, D.C.: U.S. Government Printing Office, 1989), p. 113.

Exhibit III.1  
Size of FDPIR Participant Households



Sample of 757 survey households.

sample households contained children, compared to 78.1 percent of all low-income families.<sup>5</sup> As we discuss below, this points to an important pattern of participation in FDPIR.

The data in the first column of subtotals in Exhibit III.2 show that nearly two-thirds of the households included in the survey sample contained a male adult and a female adult, referred to in the table as "couples." Survey data describing the relationships of household members to the respondent (typically the FDPIR applicant) indicate that about two out of three couples were married, and that married couples were present in 41 percent of FDPIR households. This pattern is very similar to the pattern found among all low-income

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<sup>5</sup>Bureau of the Census, *Poverty in the United States*, p. 91.

families in 1987 in that nearly 44 percent of them included a married couple.

Column 2 of Exhibit III.2 indicates that 50 percent of the sample households included children. Most of these children lived in households with couples (81 percent of all households with children).

Exhibit III.2

Household Composition of Sample FDPIR Households (N = 757)

Household Characteristics	Percentage of Each Household Type		
	1	2	3
COUPLES:	63.8		
With Children		40.7	
Married			31.9
Not Married*			8.8
Without Children		23.1	
Married			9.2
Not Married*			13.9
SINGLE ADULTS:**	<u>36.2</u>		
With Children		9.5	
Females			8.5
Males			1.0
Without Children		<u>26.7</u>	
Females			15.0
Males			<u>11.7</u>
TOTALS	100.0	100.0	100.0

\*These households include cases in which a man and woman were living as husband and wife, though unmarried, and cases of a mother and an adult son, or a father and adult daughter living together. It was not possible to determine the nature of the relationships between unmarried adults on the basis of the survey data.

\*\*This household category includes one or more adults of the same sex living together.

The households labeled "single adults" contained either male or female adults but not both. Single-adult households with children made up 9.5 percent of the total sample. Further, most of these single-parent households had female heads (8.5 percent of the total sample).

Among all low-income families in the United States, 46.7 percent are single-parent, female-headed households. Given the prevalence of this type of household among the low-income population, the rate of 8.5 percent among FDPIR households is unexpectedly low. Part of the reason, as we discuss later in the chapter, is a strong tendency among families receiving AFDC to participate in the Food Stamp Program rather than FDPIR. As a result, households without children constituted a substantial segment of the FDPIR caseload.

To extend the analysis of household size and composition, we consolidated some of the categories shown in Exhibit III.2 to form four subgroups:

- **Couples (married or not) with children.** This group includes all households with an adult female, an adult male, and one or more children, accounting for 40.7 percent of all households.<sup>6</sup>
- **Couples (married or not) without children.** Households with an adult male and an adult female present but no children represented 23.1 percent of the sample. Again, unmarried couples could involve a variety of relationships.
- **Single parents, their children, and other adults of the same gender.** Single parents (a male or female adult with one or more children living with them) represented 9.5 percent of households. These households could also include other adults, all of the same gender.
- **Single adults.** These households (26.7 percent of the sample) contained single adults living alone or two or more adults of the same gender living together without children.

A breakdown of household size for these groupings provides a better characterization of household composition. For example, Exhibit

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<sup>6</sup>Recall that approximately one-fourth of this group does not involve a married couple. It was not possible to determine the nature of the relationship between unmarried adults on the basis of the survey data.

Exhibit III.3

Size and Composition of FDPIR Households (N = 757)

Composition of Household	Percentage of Each Household Size			All Household Sizes
	1 or 2 Members	3 or 4 Members	5 or More Members	
Couples With Children	NA	20.0	20.6	40.7
Couples Without Children	14.1	8.2	0.9	23.1
Single Parents	2.5	5.1	1.9	9.5
Single Adults <sup>*</sup>	<u>26.2</u>	<u>0.6</u>	<u>0</u>	<u>26.7</u>
All Household Types	42.8	33.9	23.4	100.0

<sup>\*</sup>This household category includes one or more adults of the same sex living together.

III.3 reveals that the vast majority of large households (those with five or more members) is made up of couples with children. In contrast, most single-parent households had fewer than five members. Also, while couples without children accounted for one-third of the small households (with one or two members), most of the small households were single adults who lived alone or with other adults of the same gender. In fact, although not shown in the table, 85.8 percent of the singles households were persons living alone.

A substantial proportion (38.9 percent) of all FDPIR households include an older person. This is significant because only 15.9 percent of low-income families in the general population have an elderly householder.<sup>7</sup> Also, as we discuss in Chapter IV, only 20.5 percent of the households participating in the Food Stamp Program in 1987

<sup>7</sup>Bureau of the Census, Poverty in the United States, p. 83.

included an elderly member.<sup>8</sup> Given the extent of participation by this group, therefore, it merits further analysis.

Responses to the survey indicate that elderly FDPIR participants fall into three categories:

- single elderly (persons who live alone);
- multiple elderly (groups of two or more elderly persons who live together); and
- elderly persons living with non-elderly persons (persons who live in a household with persons younger than 60 years of age).

Exhibit III.4 shows that more than one-third of the elderly households in FDPIR were persons who lived alone (this number represents 14.2 percent of all sample households). A smaller percentage of elderly households (13 percent) were those households in which more than one elderly persons live. Fully 88 percent of this group was made up of couples without children living with them. Finally, half of the FDPIR households that included an elderly member, also included non-elderly members. Nearly half of this group were couples without children, although the category could include an elderly parent and an *adult* child of the opposite sex, or married couples in which one spouse was younger than 60. The next largest subgroup—elderly person(s) living in a household with a couple with children—suggests that between one-tenth and one-fifth of the elderly households involve an extended family living together.

One conclusion drawn from the survey data is that 38.9 percent of FDPIR households included elderly persons, half (49.6 percent) of these same households included only elderly persons, and the great majority of these households were persons living alone. As we discussed in Chapter II, many programs made special efforts to serve this population by making home deliveries and taking applications by mail. Unlike others in their age cohort who lived with non-elderly persons, the single elderly may require such assistance, and given that they constituted approximately one-fifth of the caseload in September 1989, the potential administrative effort to serve them is substantial.

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<sup>8</sup>Food and Nutrition Service, Office of Analysis and Evaluation, Characteristics of Food Stamp Households: Summer 1987, Alexandria, VA, January 1990, p. 82.

Exhibit III.4

Composition of FDPIR Households Containing a Person Aged 60 or Older

Composition of Household	Number and Mix of Elderly and Non-Elderly Members (% of approximately 294 sample households with an elderly member)			
	Single Elderly	Multiple Elderly	Elderly w/ Non-Elderly	All Elderly Households
Couples With Children	NA	0	18.0	18.0
Couples Without Children	NA	11.2	23.8	35.0
Single Parents	NA	0	4.1	4.1
Single Adults*	<u>36.6</u>	<u>1.8</u>	<u>4.4</u>	<u>42.8</u>
All Household Types	36.6	13.0	50.3	99.9

\*This household category includes one or more unrelated adults of the same sex living together.

**Characteristics of Individual Participants**

Program data indicate that an average of 138,048 individuals in 44,962 households received commodities during any given month in FY1989.<sup>9</sup> In addition to providing information about households, data from the survey offer some insight concerning the characteristics of individual members of these households. In the following sections, we review a range of demographic and socioeconomic characteristics of individual FDPIR participants.

**Gender and Age.** The individuals who participated in FDPIR during September 1989 were evenly divided by gender, with 50.5 percent of them being female. As indicated in Exhibit III.5, adult male participants tended to be younger than adult females (mean age of 42 versus 46), generally reflecting the larger number of female-headed households, including elderly women who lived alone.

<sup>9</sup>FNS, Number of Households Certified and Participating and Number of People Participating in the Food Distribution Program on Indian Reservations (FNS-152): FY-89—September 1989, Run Date: 12/20/89.

Exhibit III.5

Percentage of FDPIR Participants by Gender and Age (N = 2,441)

Age Group	Male	Female	Total
Less Than 18	19.8	17.2	37.0
18 - 39	15.4	15.3	30.7
40 - 59	8.2	9.3	17.5
60 or Older	<u>6.1</u>	<u>8.7</u>	<u>14.8</u>
All Ages	49.5	50.5	100.0

**Education.** Adult female and male participants (18 years or older) also do not appear to differ with regard to their level of education. Males had completed an average of 10.2 years of school while women averaged 10.0 years. Approximately one-fourth of male and female adults had less than nine years of education, and approximately one in ten had less than six years of education. About one in ten of the adult males (10.9 percent) and 13.4 percent of adult females had some education or training beyond high school.

Based on data from the 1984 wave of the Survey of Income and Program Participation (SIPP), educational attainment among FDPIR participants is very similar to the level among food stamp participants.<sup>10</sup> More than half (54 percent) of the food stamp participants identified in that research had not completed high school.

**Primary Activity During Survey Month.** To determine the types of activities being pursued in the survey month by FDPIR participants, we asked respondents to describe the activities of each member of

<sup>10</sup>Following our specifications, Mathematica Policy Research conducted an analysis of the 1984 SIPP Wave 3 data base; the results are summarized in Charles L. Usher *et al*, Long Term Participation in the Food Stamp Program by Work Registrants. Final Report, Volume I. Research Triangle Park, NC: RTI/3943-32/FR-03, September 29, 1989.

their household aged 16 or older.<sup>11</sup> To provide comparability with another survey being sponsored by USDA, the response codes conformed to those used in the Continuing Survey of Food Intakes by Individuals.

Exhibit III.6 shows that approximately one-fourth of the adult FDIPIR participants were working during September 1989.<sup>12</sup> Approximately one in six participants was looking for work or had been laid off from a regular job. In all, then, over 40 percent were either working or looking for work. Nearly one-fourth of the adult participants (21.9 percent) were retired or disabled, and 5.7 percent were attending school. Finally, the primary activity of more than one in four participants was described as "keeping house."

The patterns of activity for men and women differ primarily in terms of the proportion who were looking for work or had been laid off a job, and the proportion whose primary activity during the survey month was keeping house. As Exhibit III.7 shows, the largest group of men (29.4 percent) was working, while about one-fourth (25.4 percent) were looking for work or had been laid off. While a relatively large proportion of women were working outside the home (22 percent), the primary activity of the largest segment (41.9 percent) was keeping house, and fewer than ten percent had been laid off or were looking for work. More than one-fourth (26.2 percent) of the male adult participants were retired or disabled, compared to 14.1 percent of the women.

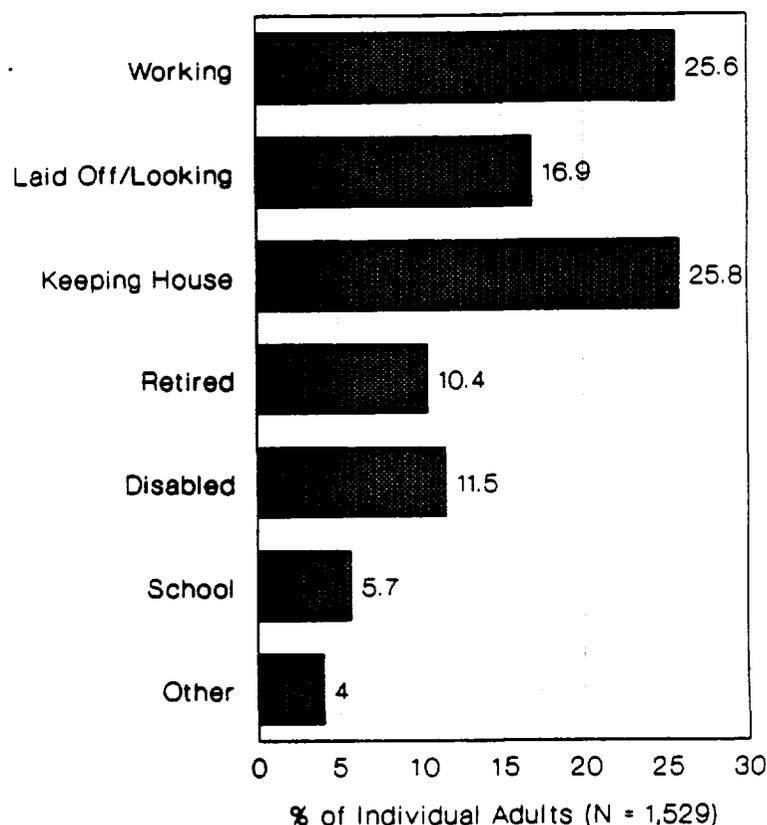
The age of participants was related to the activities in which they were reportedly engaged in September 1989. Among the elderly, for example, the data in Exhibit III.8 show that only six percent were working and 1.4 percent were laid off or looking for work. The largest group of them (39 percent) were described as retired and 19.7 percent were disabled. Most of the remaining elderly (30.6 percent)

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<sup>11</sup>Five percent of the household members aged 16 or older were 16 or 17 years old, and 92.7 percent were reported to be in school.

<sup>12</sup>More than one person was working in 10.1 percent of the households included in the survey.

Exhibit III.6  
Primary Activity of FDPIR Participants  
During Survey Month



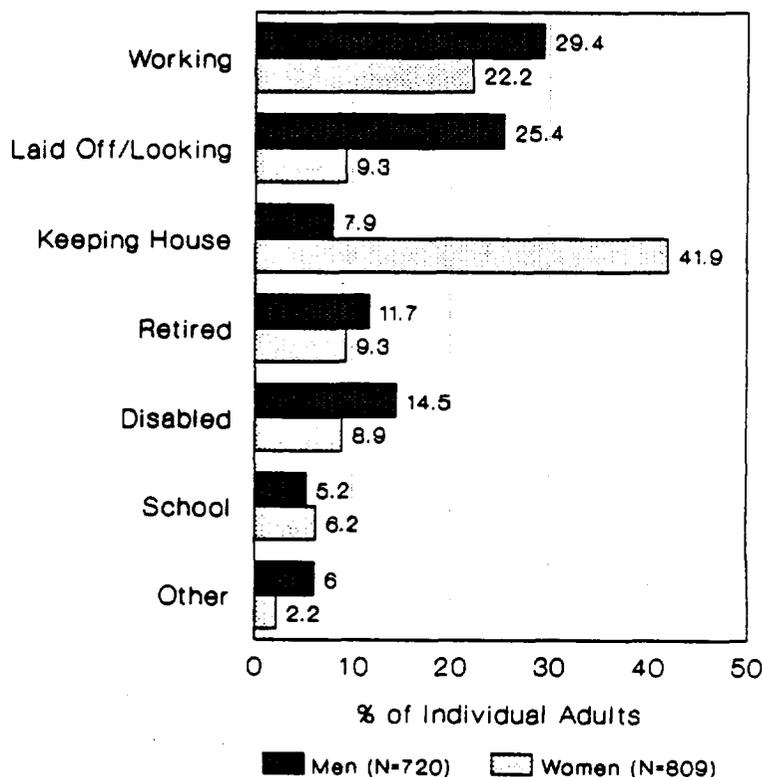
were described as keeping house.<sup>13</sup>

The group most likely to be employed in September 1989 were persons aged 30 to 59. One-third of this group were working compared to 26.9 percent of the younger adults aged 18 to 29. Consistent with this finding, the youngest adults were those most likely to be looking for work or to have been laid off (27.9 percent). Although a fairly substantial percentage (15.1 percent) of this group were attending school, the data on activities suggest that problems of unemployment may affect younger adults more than older adults.

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<sup>13</sup>Although it is not possible to ascertain from the data, the distinction between retirement and keeping house for elderly participants may refer simply to the activity of persons who were formerly employed outside the home and retired from that work. Persons who had not worked outside the home and continued to fulfill the same responsibilities as they became older may not consider themselves to be "retired."

Exhibit III.7  
 Primary Activity of Adult Male and  
 Female Participants



**Economic Status** **Household Income.** Consistent with the income-eligibility guidelines established for FDPiR, income levels for the sample households were very low. In fact, the data in Exhibit III.9 (taken from the case records of 827 sample households) indicate that one-third of the households actually had a gross income equal to 50 percent or less of the poverty level established for 1989, and more than half had income no greater than 75 percent of poverty.<sup>14</sup> One in five households that participated in FDPiR in September, 1989, had gross income that placed them above the poverty level, but only 4.3 percent of the sample households had gross incomes that exceeded 130

<sup>14</sup>The data reported in Table III.9 are based on income shown in the FDPiR case record and the household size reported in the survey. Persons who were reported to be purchasing food and preparing meals separately were not counted in establishing the size of each household.

Exhibit III.8

Primary Activities of Individual FDPIR Participants by Age (N = 2,441)

Primary Activity in September	Percentage of Participants by Age Group		
	18 - 29	30 - 59	60 or More
Working	26.9	34.2	6.0
Laid Off or Looking for Work	27.9	18.2	1.4
Keeping House	21.9	25.7	30.6
Retired	0	2.6	39.0
Disabled	2.6	12.5	19.7
Attending School	15.1	3.1	0.3
Other	<u>5.6</u>	<u>3.7</u>	<u>3.0</u>
All Activities	100.0	100.0	100.0

percent of poverty.

This level of poverty existed in spite of the fact that, as shown in Exhibit III.10, one-third of the households that received FDPIR commodities in September 1989 had earnings (wages or income from self-employment).<sup>15</sup> An additional 3.9 percent were receiving unemployment benefits related to recent employment. An equally large group of households (35 percent) had retirement income from Social Security, a pension, or the Veterans Administration. Thus, 29 percent of all households received a Social Security benefit and 3.4

<sup>15</sup>Recall that about one-fourth of all adult FDPIR participants reported being employed during this same month. These apparent differences in reporting rates are due to the fact that the employment rates are reported for individual participants while the earnings rates are based on household units. In fact, among 24 percent of the households with earnings, more than one adult was reported to be working.

Exhibit III.9

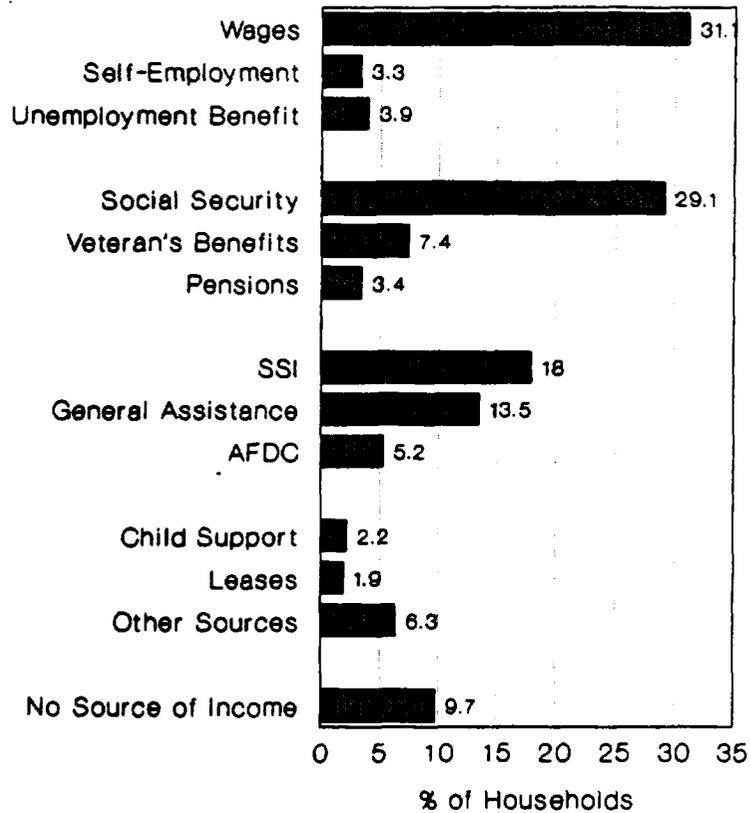
Gross Income of 827 Sample FDPIR Households  
as a Percentage of the Poverty Level

Percentage of Federal Poverty Guidelines	Percentage of All Households	Cumulative Percentage
25% or Less	17.6	17.6
26 - 50%	16.5	34.1
51 - 75%	21.8	55.9
76 - 100%	24.1	80.0
101 - 130%	15.7	95.7
> 130%	4.3	100.0

percent had pension income. The military service of some FDPIR participants was reflected in the receipt of veteran's benefits by 7.4 percent of the households.

In spite of the generally low levels of income for FDPIR households, participation rates in income assistance programs are relatively low. Only 31 percent of the sample households received welfare payments; that is, income from AFDC, Supplemental Security Income (SSI), General Assistance, or some combination. In fact, 18.0 percent of the participating households were receiving SSI and an even smaller segment of the caseload (13.5 percent) received General Assistance payments through the Bureau of Indian Affairs or State welfare agencies. Finally, in sharp contrast to the Food Stamp Program, in which approximately 40 percent of the participating households receive AFDC, only 5.2 percent of FDPIR households received payments from this program. As we noted above and discuss in detail in Chapter IV, this result reflects an important pattern of food assistance program participation for American Indian households and is explained largely by program cross-referral patterns at the point of program application.

Exhibit III.10  
Sources of Income Among FDPIR  
Participant Households



Sample of 827 case records.

In addition to employment-related income and support from income assistance programs, a few FDPIR households had income from child support payments (2.2 percent), leases of tribal-owned land (1.9 percent), and other miscellaneous sources (6.3 percent). It also is notable that the FDPIR case records of nearly one in ten households (9.7 percent) reflected no income. However, in comparing the characteristics of these households with the remainder of the caseload, we did not find any significant differences.<sup>16</sup> The most likely explanation for this is that in FDPIR, as in other assistance programs, some participants report having no income at the time of application or recertification because they have just become unemployed or their

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<sup>16</sup>This comparison involved a wide array of characteristics, but it was constrained by the small segment of the sample (fewer than 75 households) it entailed. Nevertheless, the findings across the different variables did not point to a possible pattern that might merit further investigation.

application for cash assistance is being processed.<sup>17</sup> This is not to deny that some of these households, in fact, experience a long-term lack of income. But, records at a given point in time also reflect households' transient economic circumstances.

Exhibit III.11 shows some clear patterns in the relationship between household composition and sources of income. First, it indicates that the type of household most likely to have earnings is couples with children. Wages were shown in the case records of more than half of this group. Second, Social Security, SSI, and General Assistance were the most common sources of income for couples without children and singles. Given the prevalence of elderly households among both groups, this pattern was to be expected. Third, again not surprisingly, AFDC was most commonly found among single-parent households. However, as we discuss below, the pattern of income for this group was quite diverse.

While a single-parent household could receive income from earnings, Social Security, and AFDC, only one-fourth of these households in the study sample received AFDC payments. In fact, as many single-parent households received Social Security benefits (most likely for a parental death benefit) as AFDC (both 24 percent), and more (27.6 percent) had earnings. These results suggest that this group of single parents does not conform to a typical pattern of welfare dependency. As we discuss in Chapter IV, many American Indian AFDC households also choose to participate in the Food Stamp Program rather than FDPIR. As a result, these single parents in FDPIR may represent the segment of this group that is able to rely more on Social Security, child support, and income from employment.

**Financial Assets.** The impoverishment of FDPIR households is reflected in their level of liquid assets as well as their income. More than three-fourths of the household case records (78.6 percent) indicated no cash on hand and 72.4 percent showed no liquid assets of any kind when they applied for assistance or were last recertified. As Exhibit III.12 shows, the case records of only 3.3 percent of FDPIR sample households indicated total assets of \$500 or more. Among the households that had liquid assets, more than half (56.1 percent)

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<sup>17</sup>Six percent of the households receiving food stamps in 1987 reported not having any income; see FNS, Characteristics of Food Stamp Households: Summer 1987, p. 42. Also recall that in FDPIR a household may be certified for one month pending receipt of information documenting their financial circumstances. As a result, information in some cases may simply not have been entered in the case record.

Exhibit III.11

Sources of Income by Composition of Household and Mean Monthly Income (N = 827)

Composition of Household	Percentage of Households with Given Sources of Income					
	Earnings	Social Security	SSI	General Assistance	Veteran Benefit	AFDC
Couples With Children	52.2	13.5	6.5	6.9	3.3	7.2
Couples Without Children	18.0	40.5	28.0	19.7	11.4	0.9
Single Parents	27.6	24.0	13.2	10.2	4.5	24.0
Single Adults	8.8	44.7	28.7	20.1	13.2	NA
All Households	31.3	29.1	18.0	13.5	7.4	5.2
Mean Income	\$827	\$385	\$270	\$165	\$346	\$284
Standard Error	\$31	\$22	\$14	\$21	\$24	\$28

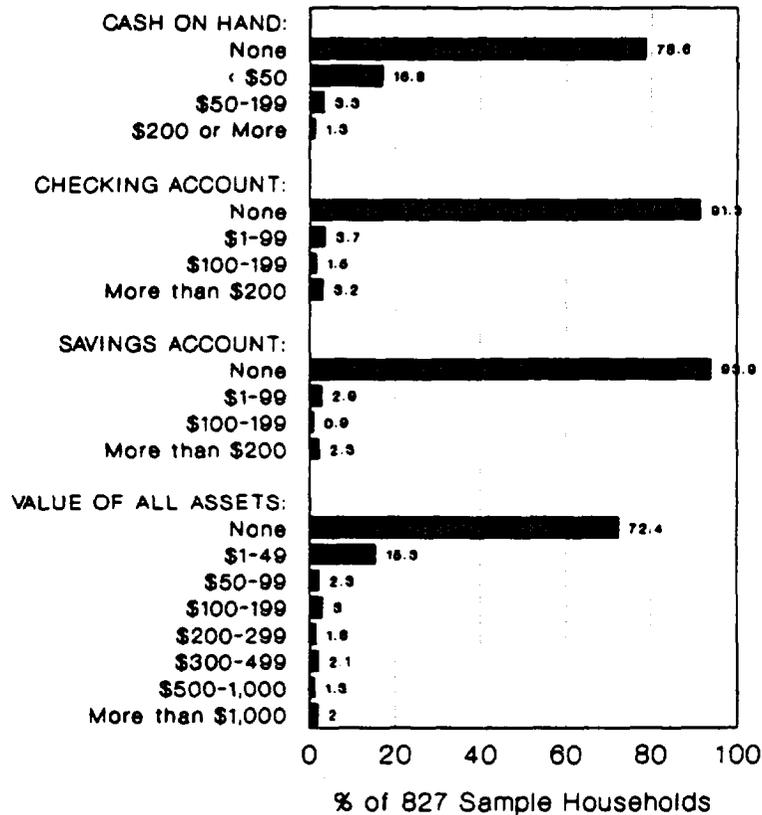
had less than \$50, typically in a checking account or cash in hand. Thus, the financial assets of these households were far below the asset limits established for FDPIR eligibility (that is, \$1,750 for households that do not include a person aged 60 or older, and \$3,000 for households with an elderly member).

**Housing Arrangements**

Given the generally scarce economic resources of FDPIR participants, housing expenses could impose serious limitations on meeting other household needs, including food. Exhibit III.13 indicates that nearly half (48 percent) of the households participating in FDPIR during September 1989 either owned their homes or lived in them rent-free. One-third of the households occupied rental units, and the remainder were in the process of buying their homes. The average rental or house payment for households in these two categories was \$122 per month.

The chart also reports the mean monthly gross income of households in each housing category. It is not surprising to see that the house-

Exhibit III.12  
Liquid Assets of FDPIR  
Participant Households



holds that were purchasing homes had the highest level of income, averaging \$748 per month gross income. Renters had the second highest level of income with \$579 per month. Persons who owned their home had somewhat lower levels of income, averaging \$503. Finally, households that did not own a home, but lived rent-free under some other unspecified arrangement had the lowest level of average monthly gross income, \$314.

Housing costs also can be viewed as a percentage of gross income that is devoted to this purpose. Among households that had to pay rent or a mortgage payment, this expense consumed an average of 21 percent of their gross income. Nearly three out of four of these households (71 percent) paid less than 25 percent of their gross



Exhibit III.14

Housing Arrangements of FDPIR Households Containing  
a Person Aged 60 or Older

Housing Arrangement	Number and Mix of Elderly and Non-Elderly Members (percentage of all households with an elderly member)			
	Single Elderly	Multiple Elderly	Elderly w/ Non-Elderly	No Elderly
Buying	7.5	6.9	14.0	21.9
Own Home	54.5	72.6	54.5	24.5
Renting	29.1	13.4	22.8	39.8
Rent-Free or Other	2.0	7.2	8.8	13.8
All Arrangements	100.1	100.1	100.1	100.0

Housing arrangements also are related to household composition, especially the presence of an elderly person. Exhibit III.14 shows that households composed only of elderly persons were the least likely types to be buying a home, primarily because more than half of them already owned a home. In fact, nearly two-thirds of the elderly households either owned a home or lived rent-free. In contrast, only one third or so (38.3 percent) of households that did not include an elderly member were in such a position. In considering this finding, however, it is important to emphasize again that all of these households have very low income and these data do not consider the quality of housing available to them.

**Transportation**

One of the assumptions underlying the establishment of FDPIR was that the remote location of reservations and the wide dispersion of population within them made it difficult for many American Indians to reach grocery stores and public agencies. Also, given their rural location, this group often cannot use public transportation and must rely on private means. In this section, therefore, we examine, first, travel distances to destinations such as the FDPIR distribution point and grocery stores, and second, the means of transportation used by program participants.

**Travel Distances.** Exhibit III.15 shows the distance *each way* to the sample households' commodity distribution point, food retail outlets, and to the nearest food stamp office. Although there is some regional variation in these travel distances, it is more notable that, for most households, these distances were approximately 10 miles or less.<sup>19</sup> The only exceptions are the longer distances FDPIR households in the Mountain Plains and eastern regions would have to travel to reach the local food stamp office. However, the data for the eastern regions must be interpreted cautiously because of the very small number of cases on which they are based.

Overall, commodities usually could be obtained at a site located six to nine miles from the participant's home. The nearest food store (more often a small grocery or convenience store) was usually within four to five miles of home, whereas buying fresh meat and vegetables required driving to a store four to eight miles away.

In four regions, the commodity distribution point is usually closer to the homes of FDPIR participants than the store at which they buy fresh meat and vegetables. Only in the Southwest does the distribution point tend to be farther away. If FDPIR households were to apply for food stamps, however, the trip would likely be farther away (much farther in the Mountain Plains and eastern regions) than the commodity distribution point.

Although the distances in Exhibit III.15 *average* less than 10 miles each way, some FDPIR participants have to travel long distances to reach the commodity distribution point and food stores. To gauge the extent to which this occurs across regions, we present the percentage of households in each region who had to travel more than 20 miles to these destinations.

The regional variation indicated by the data in Exhibit III.16 is generally consistent with the information presented above in that more households in the West and Mountain Plains Regions have to make these long trips. In fact, more than one-fourth of the households in these regions had to travel more than 20 miles each way to the commodity distribution point, in spite of widespread use of

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<sup>19</sup>The median is used as the "average" here. By definition, half of the households traveled less than the median distance and half traveled more than the median distance. As we discuss below, a relatively small percentage of households had to travel great distances. If we used the mean travel distance, these extreme values would have inflated the "average" travel distances we reported.

Exhibit III.15

Median One-Way Distances to Public Agencies and Food Stores For FDPIR Households (in Miles, by Region)

Destination	Distance from Residence, by Region					Average Distance (N = 757)
	Mountain Plains	Southwest	West	Midwest	Northeast/Southeast	
Commodity Distribution Point	6.9	8.9	7.8	5.7	2.6	7.5
Nearest Food Store	4.7	3.8	5.1	4.8	4.4	4.4
Nearest Store for Fresh Meats/Vegetables	7.5	4.3	8.1	8.1	9.1	6.2
Food Stamp Office	16.3	8.3	10.4	10.8	21.3	11.0

tailgate certification and food distribution systems by programs in those regions. However, in all cases, a larger proportion would have to travel long distances to apply for and be recertified for food stamps.<sup>20</sup>

Many FDPIR participants travel farther than the nearest food store in order to buy fresh meat and vegetables (Exhibit III.15). As indicated in Exhibit III.17, the nearest store for them may be a small grocery or country store, a trading post, or a convenience store where fresh produce is not available. In fact, the nearest store for nearly one-third (31.0 percent) of the FDPIR participants in the West is a trading post or tribal cooperative store. The same is true of one-fourth (25.4 percent) of the midwestern participants.

<sup>20</sup>We should note that participation in the Food Stamp Program usually does not require monthly trips to the food stamp office. Widespread use of mail issuance of food coupons, particularly in rural areas, minimizes the number of trips.

Exhibit III.16

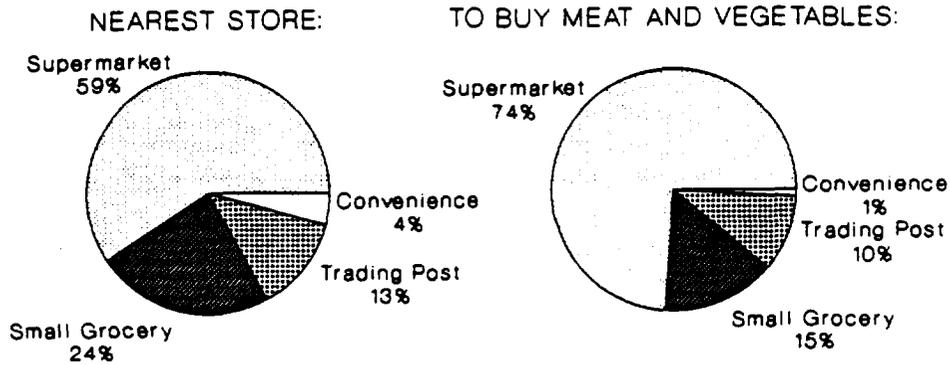
Percentage of FDPIR Households Driving More Than 20 Miles  
Each Way to Distribution Point and Food Stores, by Region

Destination	Percentage of Households, by Region					Total (N = 757)
	Mountain Plains	Southwest	West	Midwest	Northeast/ Southeast	
Commodity Distribution Point	26.6	21.1	25.5	1.3	5.3	21.4
Food Stamp Office	39.2	15.7	39.5	11.8	42.6	28.7
Nearest Food Store	11.1	2.8	17.7	4.7	5.3	5.3
Nearest Store for Fresh Meats/Vegetables	21.3	5.6	29.5	5.9	21.3	21.3

**Means of Transportation.** Given the remote places of residence for many FDPIR participants, it is clear that transportation is important to them. As Exhibit III.18 indicates, more than two-thirds of participant households own a car or truck. Also, most either traveled in their family's car to the store (73.0 percent) or to the FDPIR office (70.8 percent), or got a ride with a friend (9.9 percent and 10.0 percent, respectively). About one-tenth of the households had to pay a friend to drive them different places (11.2 percent for shopping and 10.0 percent for recertification). Finally, 4.8 percent reported that they walked to the store the last time they bought food and 4.2 percent said they walked to the FDPIR office the last time they were recertified.<sup>21</sup>

<sup>21</sup>Three-fourths of the trips made on foot to be recertified were no more than one mile. Also, among the group who walked, 30.5 percent reported that their household owned a vehicle.

Exhibit III.17  
Food Stores Used by FDPIR Participants



Sample of 757 survey households.

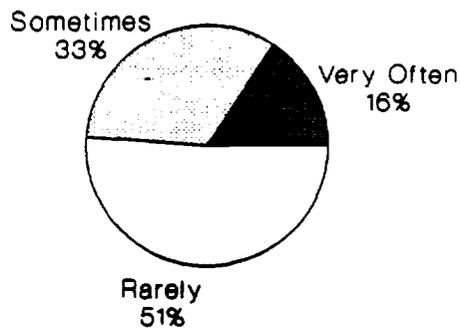
Among the 68.1 percent of households that had a vehicle, only 16 percent very often had difficulty getting where they needed to go because of problems with their cars or trucks. However, more than half (55.1 percent) of all households that owned a vehicle reported that they sometimes could not travel because they lacked money to buy gas. Also, it is worth noting that 9.4 percent of the households that had a vehicle manufactured since 1985 very often had trouble getting where they needed to go, compared to 17.9 percent of the households with older vehicles.

Households without vehicles were much more likely to experience difficulty getting where they needed to go. Thirty-nine (39) percent of this group (12.5 percent of all the sample households) reported that they very often had problems getting where they needed to go because a car or truck was not available, or because they could not get a ride. Also, nearly two-thirds (64.2 percent) said that at least sometimes they lacked money to pay someone to drive them.

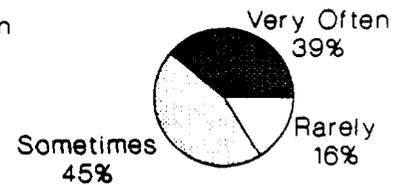
Even though many households have vehicles, various economic constraints resulted in nearly one-fourth of all sample households reporting that they very often had difficulty getting where they needed to go. Thus, transportation continues to be a problem for a

Exhibit III.18  
How Often FDPIR Households Have Trouble  
Getting Where They Need to Go

68 PERCENT WITH VEHICLE(S):



32 PERCENT LACKING VEHICLE:



Sample of 757 survey households.

substantial segment of the FDPIR caseload.

## **B. DIETARY NEEDS AND FOOD PREFERENCES**

In this section, we discuss selected nutritional problems of special concern among American Indians, the dietary needs of FDPIR households, and the extent to which the program meets the food preferences of its target population. Specifically, we address the following:

- the nutrition and health context of FDPIR participants by a review of recent food and nutrition research findings concerning American Indians;
- the adequacy of the household food supply, and the perceived food needs of FDPIR participants;

- the special dietary needs of FDPIR households reported by survey respondents; and
- the food preferences described by FDPIR participants.

**Nutrition and Health Context of FDPIR**

During the planning phase of this evaluation, we conducted a review of the literature concerning food intake and nutritional status among American Indians.<sup>22</sup> Major findings that pertain to food, diet and health are summarized below.

1. High rates of morbidity and mortality among American Indians due to infectious diseases have become less threatening in the last 40 years compared to increasing rates of diet-related chronic diseases, including cardiovascular disease, hypertension and, particularly, diabetes.
2. One in three American Indians is currently reported to be at risk of developing Type II diabetes, and among selected tribes, such as the Pima, the disease is found at a rate of 50 percent of the adult population. While Type I diabetes usually develops during childhood or adolescence and requires lifelong treatment with insulin, Type II diabetes is characterized by adult onset and the presence of obesity which often may be treated with diet and exercise.
3. Several studies of American Indian children on tribal reservations during the past 25 years reported low intakes of energy, calcium, iron, and vitamins A and C. Relatively high rates of anemia (10 to 20 percent) also have been reported among children. However, a gradual decrease in many of these problems is evident during this same time period and may be the result of supplemental commodity food and income transfer programs, as well as a general improvement in socio-economic conditions as measured by improved household conditions (e.g., running water, electricity and refrigeration). Data are not available on the current dietary status of this subpopulation.
4. Heights and weights among American Indian children are lower than those of the white population in the United States, probably due to both nutritional and genetic differences. These children are generally shorter in stature, and slightly lighter in weight when compared to white children of the same ages. However, American Indian children are heavier than the national average when adjusted for height.
5. American Indian women who have been studied over the past 25 years have consistently reported lower dietary intakes of energy, calcium, iron, and Vitamin A than other US population groups. Numerous other nutrients have been

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<sup>22</sup>This review was submitted as part of the project's Data Collection and Analysis Plan (July 26, 1989). In all, 36 journal articles, books and chapters were reviewed. Given that most of these sources were published between 1984 and 1988 (several earlier sources provide historical perspective), they represent the prevailing knowledge on North American Indian nutrition and health status.

reported as being consumed at levels below the Recommended Dietary Allowances (RDAs), and vary from study to study.

6. High rates of overweight and obesity (greater than 120 percent of Ideal Body Weight) among adolescent and adult Americans Indians have been reported, with current estimates of obesity ranging generally from 30 to 60 percent. While obesity was rarely reported in this population 40 years ago, there has been an increasing trend in the prevalence of both overweight and obesity since that time. Based on recent studies, current rates may be closer to the 60 percent rate.
7. The apparent discrepancy between reported low rates of caloric intake and high rates of overweight and obesity have been attributed, at least partially, to a much more sedentary reservation lifestyle than was previously experienced.
8. Traditional American Indian foods have largely been replaced by more processed, commercially prepared food items. Even among the most culturally conservative tribes, such as the Hopi, there is a greatly decreased recognition and use of traditional foods. Importantly, the variety and quality of the diet also has declined, with more limited food preferences being expressed by American Indians than was reflected in earlier, more traditional diets.
9. Previous studies based on data collected in the early 1980s indicated that commodity foods among program participants may contribute up to 50 percent of the intakes of most nutrients except for fat and Vitamins A and C. The reported amount of fat consumed by American Indians attributable to the commodity foods was consistent with the average daily intake of the general US population, while the fat appeared to be primarily saturated. Further, the fiber content of the American Indian diet was lower than the US average, which was considered in itself too low.
10. Recommendations in the literature related to FDPIR were made to: decrease the levels of saturated fat, salt and sugar; increase the levels of fiber, and vitamins A and C; increase the variety of foods offered through the program; and provide nutrition education to all program participants.

In response to these observations and recommendations, a 1985 FNS Task Force analyzed the nutrient profile of the FDPIR food package to determine how well it met participants' nutritional needs. Where the package was not consistent with USDA's Dietary Guidelines for Americans, the FNS Task Force recommended several modifications, which then were made. These changes resulted in a package that is reported to provide appropriate levels of most key nutrients, 101 percent of the RDA's for food energy (calories), with 34 percent of the calories derived from fat.

A recently released GAO report describes requests made by Indian Health Service (IHS) officials and tribal nutritionists to further reduce

fat and sodium content in selected commodity foods.<sup>23</sup> In commenting on the GAO report, USDA noted that in the overall commodity food package, only 34 percent of the calories are derived from fat. There also was a concern that further reducing sodium and fat in canned meats might reduce palatability and would require buying food items at higher cost.

The GAO report also indicated that more nutrition education is needed to help recipients acquire the knowledge and skills necessary to achieve nutritious diets and reduce the prevalence of obesity, diabetes, hypertension and heart disease. USDA noted that it now offers more nutrition education technical assistance than previously, including expanded lending and reference services from the National Agriculture Library, and relevant bibliographies. Improved nutrition education also is promoted by FNS through sharing USDA nutrition education materials and by encouraging local FDPPIR programs to coordinate their efforts with other community organizations.

In summary, American Indians face high rates of morbidity and mortality, due in part to diet-related chronic diseases such as Type II diabetes, heart disease and hypertension. While some American Indians may be experiencing insufficient intakes of selected nutrients, many are obese, and obesity is causally linked to these diet-related diseases. Unfortunately, comprehensive studies on the dietary intake and nutritional status of this population are lacking. Although improvements to the FDPPIR food package and nutrition education services have been made during the past several years, some Indian health officials still express concern about the nutrient content of selected commodity food items and the need for expanded nutrition education services.

#### **Adequacy of Household Food Supply**

In order to examine the adequacy of the household food supply among FDPPIR participants, we studied three sets of measures. First, we examined food expenditures according to different patterns of food purchases reported by survey respondents. Second, we identified sources of food that had not been purchased or obtained through FDPPIR. Third, through the survey data, we assessed FDPPIR households' perceived food needs. The results of these three sets of analyses are described below.

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<sup>23</sup>United States General Accounting Office, Food Assistance Programs: Nutritional Adequacy of Primary Food Programs on Four Indian Reservations. GAO/RCED-89-177, September 1989.

**Food Expenditures.** The expenditure of household resources on food is one measure of the adequacy of income to meet the nutritional needs of household members. We measured household food expenditures during home interviews by asking respondents to estimate the total amount of money spent by their households at the grocery store during the month of September 1989. Respondents also estimated the amount spent on nonfood items so that the amount spent on food could be calculated. If they considered the amount reported for September to be atypical of their usual monthly food expenditures, respondents were asked to indicate how much they *usually* spent at grocery stores. Finally, we asked respondents how much they spent on food and drinks in restaurants, bars, cafes and other such places, as well as home-delivered and carry-out foods.

Analysis of these data revealed two striking patterns. First, the level of per capita spending for food was strongly associated with patterns of food purchases. Second, households with higher income were more likely to purchase food in restaurants or from take-home or home-delivered sources.

Exhibit III.19 shows that the largest group of sample households purchased food only at grocery stores, and did not go to restaurants or buy prepared foods to take home. This group, which constituted 43.2 percent of the sample, spent an average of \$26 per member at the grocery store each month and had the lowest mean gross monthly income, \$494. This income was substantially lower than the average income of \$578 for all households in the survey sample. These households devoted an average of 16 percent of their monthly income to food purchases.

The next largest group according to patterns of food purchases was households that purchased food at grocery stores and also ate at restaurants. Representing 34.1 percent of the sample households, this group's mean monthly income was \$549. Their purchases at grocery stores averaged \$28 per household member, while restaurant purchases averaged \$10. All told, food expenditures accounted for 21.7 percent of this group's monthly income.

Households that also purchased prepared foods for home consumption or bought home-delivered food tended to have the highest monthly income of any group of households. However, of an average \$729 monthly gross income, nearly one-fourth (23.7 percent) was devoted to food purchases. This amounted to \$5 per member for take-home and home-delivered foods, \$10 per member for food

Exhibit III.19

Monthly Food Purchases For Consumption at Home and Away  
by Pattern of Food Purchases

Sources of Food Purchases	Percentage of FDPIR Households (N = 757) (%)	Mean Gross Monthly Income of Households (\$)	Percentage of Income Spent on Food (%) <sup>*</sup>	Per Capita Purchases From Different Sources (\$)			
				Take Home	Restaurants	Grocery Stores	Total
Grocery Stores Only	43.2	494	16.0	—	—	26	26
Grocery Stores and Restaurants	34.1	549	21.7	—	10	28	38
Grocery Stores, Restaurants and Take-Home Establishments	12.0	729	23.7	5	10	\$28	\$44
Grocery Stores and Take-Home Establishments	6.0	625	17.0	5	—	25	30
Other	4.6	657	11.1	4	15	—	\$18
Total, All Sources	99.9	578	17.1	1	5	24	31

\*Percentage of income spent on food was calculated using case record income data and survey expenditure data. Despite the data collection time lag between these two sets of data, the average percentages across households are useful to describe household subgroups.

eaten at restaurants, and \$28 per member for food from grocery stores. This group constituted only 12 percent of the entire sample of FDPIR households.

A small segment of the sample did not report purchasing any food at restaurants, but did buy take-home food. Representing only six percent of the sample, this group had relatively high incomes averaging \$625. Their level of per capita spending was \$5 for take-home food and \$25 for food from grocery stores, which collectively required 17 percent of these households' gross monthly income.

Notably, in all four patterns of food purchases, spending in grocery stores varies by no more than \$3 per month per person, despite differences in mean gross monthly income. Variation in food purchases, which is a function of reported income, was introduced by purchases in restaurants and take-home establishments.

An even smaller segment of households reported not spending any money at grocery stores, but only at restaurants and for take-home and home-delivered foods. This group spent the smallest percentage of its income for food (11.1 percent) even though the mean income of \$657 was higher than the average for all sample households. Not surprisingly, this group spent more per member at restaurants than any other group (\$15), but averaged only \$5 for take-home, a level similar to other groups' per capita spending for food from this source.

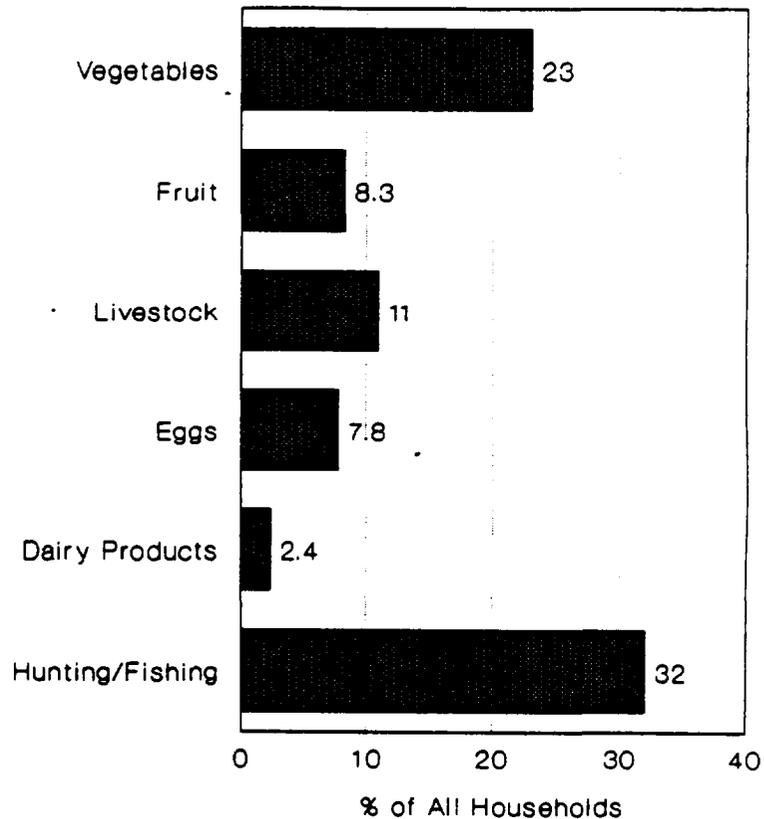
It is interesting that per capita spending for food from different sources did not vary much across different groups of households. Spending for grocery stores, for example, ranged from \$25 to \$28. Spending at restaurants (for households that ate at restaurants) was typically \$10 per member per month. Similarly, spending for take-home and home-delivered foods averaged \$5 per person for households that purchased such items.

The patterns of food purchases shown in the exhibit tended to be associated with other household characteristics. Our findings indicate that three household characteristics tended to be positively associated with purchasing food at restaurants and grocery stores rather than grocery stores only. They were (1) the presence of children in the household; (2) the absence of a person aged 60 or older; and (3) earnings in excess of \$500 per month. Among households with earnings this high, for example, only 26.1 percent relied solely on grocery stores for purchased foods, whereas 49.6 percent of the households that had lower earnings or no earnings purchased food from grocery stores only.

**Other Food Sources.** As the data in Exhibit III.20 indicate, a substantial proportion of FDPIR households produce some of their food themselves. One-half of the respondents (50.4 percent) reported producing supplemental foods from at least one of the sources shown in the exhibit. Almost one-fourth of all the FDPIR survey households (23 percent) reported growing vegetables for home use, and in the Southwestern Region, nearly one-in-three households (31.8 percent) reportedly had vegetable gardens. Finally, almost one-third of the

survey households (32 percent) reported using hunting or fishing as a supplemental food source, particularly households in the Midwestern Region (46 percent) and the Mountain-Plains Region (42 percent).

Exhibit III.20  
Supplementary Sources of Food for  
FDPIR Households



Sample of 757 survey households.

Focus group discussions corroborated these findings. In addition to purchased foods, participants reported hunting and fishing as an important source of supplemental food. Fewer individuals in the focus groups reported growing seasonal gardens, though for at least one of the reservations visited, the geography was not suitable for significant gardening activity; many reservations are located on land that is not arable.

In addition to FDPIR, many households reported receiving food assistance from other programs, including the School Breakfast and Lunch Programs, WIC, elderly feeding programs, food banks, and

quarter (25.9 percent) of all households with elderly members present participated in these programs. A relatively small proportion of households (5.2 percent) received help from non-Federal food assistance programs, such as food banks or church programs.

**Perceived Food Needs.** FDPiR participants reported their perceived food needs during the household survey and during focus group discussions. Survey respondents were asked to choose the statement that best described the food their household ate in September 1989:

- We had enough of the kinds of food we wanted to eat.
- We had enough food, but not always the kind we wanted to eat.
- Sometimes we did not have enough to eat.
- Often there was not enough to eat.

The results of these questions are depicted in Exhibit III.22.

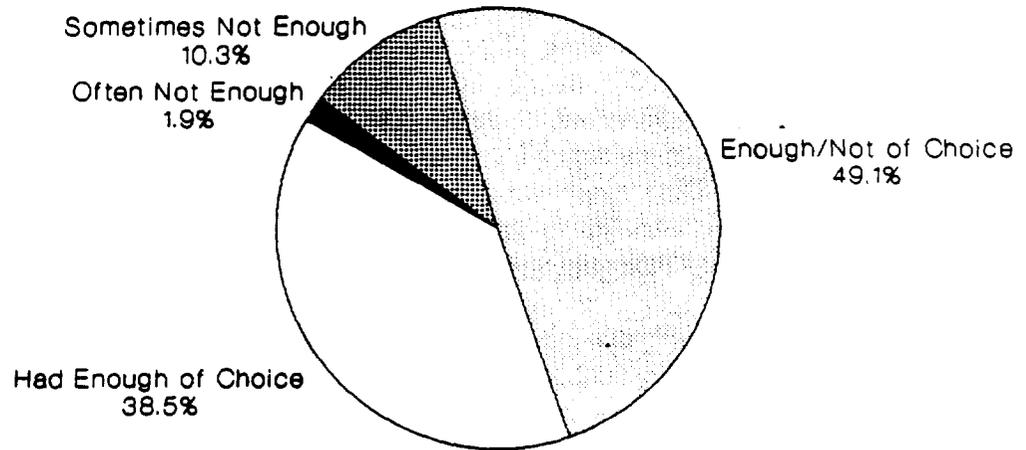
Overall, seven out of eight respondents (87.6 percent) said they had enough to eat. Almost one-half of the study population (49.2 percent) reported that they had enough to eat, but did not always have the kinds of food that they wanted. Another 38.5 percent responded that they had enough of the kinds of foods they wanted to eat. One in eight respondents (12.2 percent) reported that their households sometimes or often did not have enough food to eat.<sup>24</sup>

The respondents who said that they sometimes or often did not have enough to eat also were asked if there were days when their households had no food or money to buy food, and if so, for how many days. Among this group, 80.8 percent (or about 10 percent of the entire sample) responded that their households were without either food or money to buy food for an average of 5.5 days in a typical

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<sup>24</sup>This result appears consistent with rates of food sufficiency reported previously within the food stamp population. Twelve percent of a nonmetropolitan low-income sample reported sometimes or often not having enough to eat. See K.S. Tippett et al., "Food and Nutrient Intakes of Low-Income Women and Children, in Metro/Nonmetro Areas, 1985/86," Family Economics Review 3(1):12-15.

Exhibit III.22  
Availability of Food During Survey Month  
for FDPIR Participant Households



Sample of 757 survey households.

month. In other words, on average, these households did not have enough to eat one day out of every five or six days.

Respondents from this group of households also were asked if household members had to skip meals because of this shortage, and if so, for how many days. Two-thirds of them (representing 8.2 percent of the total survey sample) skipped meals on an average of 4.2 days per month.

In order to describe the FDPIR households reporting insufficient food resources during the survey reference month, we examined a wide range of demographic and socioeconomic characteristics. The most important finding is that 60.6 percent of this group lived in the Western Region. Also, nearly three-fourths (73.5 percent) of all FDPIR households reporting that they had to skip meals "because there wasn't food or money to buy food" were from the Western Region.

As we discuss in sections that follow, households in the West stand out in terms of their lack of resources such as running water and electricity. Also, a larger proportion of households in the Western Region tend to have public assistance income. These characteristics also appear to be more common among all households that reported an inadequate food supply for September 1989. However, we cannot conclude definitely that these factors are, in fact, related to this problem for two reasons. First, due to the size of the survey sample and especially the number of households reporting this problem, it is not possible statistically to state that these characteristics are related to the lack of an adequate food supply. Second, the characteristics of households living in the West also are associated with households reporting a lack of food. Thus, the relative effects of these two sets of factors cannot be disentangled. Therefore, the only conclusion we can confidently draw is that FDPIR households in the Western Region were more likely than those in other regions to report having an inadequate supply of food.

**Dietary Needs  
of FDPIR  
Households**

In this evaluation, indicators of the dietary needs of study participants were examined using survey and focus-group data.<sup>25</sup> First, the survey included questions related to family health status and prescribed diets; specifically, whether any member of the household reported having any diagnosed nutrition-related diseases and/or a special diet prescribed by a doctor or other health professional. During focus group discussions, participants were asked about the most prevalent nutrition-related health problems on the reservations, and their recommendations to address these problems. Second, since the ability to meet dietary needs also may be influenced by the adequacy of household food storage and preparation facilities, questions were asked on this topic during the survey and focus group discussions.

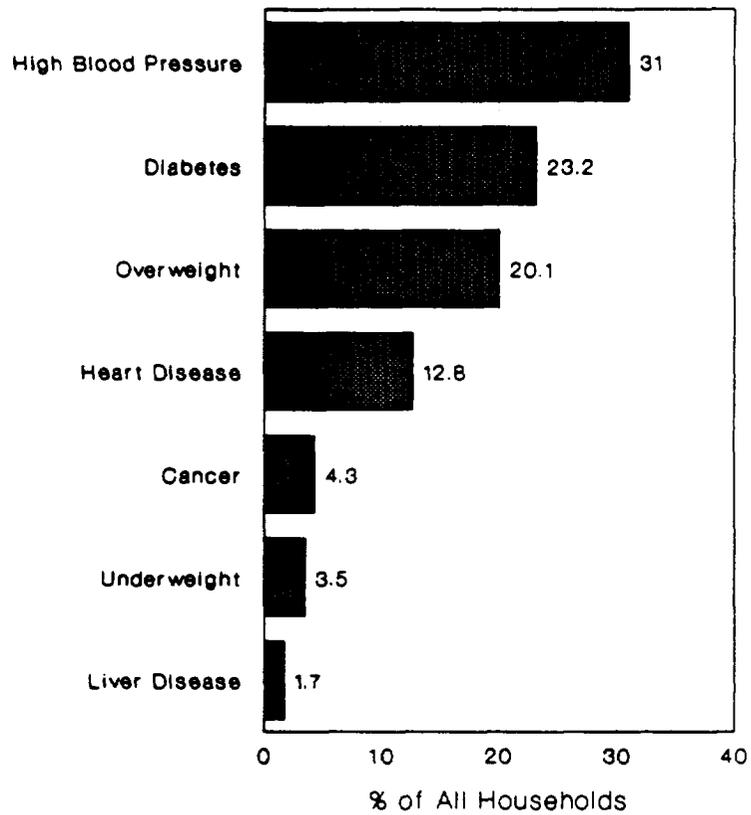
**Family health status.** FDPIR survey respondents were asked if any household members had ever been told by a doctor or other health professional that they had one of seven common nutrition-related health problems. In total, more than half (53.9 percent) of all FDPIR households have at least one adult (over 16 years of age) with one or

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<sup>25</sup>Dietary needs refer to the nutritional requirements of the study population, and are differentiated from the broader concept of food needs discussed previously. To assess dietary needs, it is necessary to collect data on the actual dietary intake of individuals, the food practices of households, socio-economic data, anthropometric, biochemical and clinical measures. Such measures were beyond the scope of this study. Instead, we collected self-reported data from participants that serve as indicators of dietary needs.

more nutrition-related health problems.<sup>26</sup> The proportion of households responding affirmatively to this question is summarized in Exhibit III.23. Almost one-third (31 percent) of all households reported at least one person with diagnosed high blood pressure (also described as hypertension), about one-quarter (23 percent) with a member having diagnosed diabetes and one-fifth (20.1 percent) with at least one overweight household member.

Exhibit III.23  
Nutrition-Related Health Problems Among  
FDPIR Households

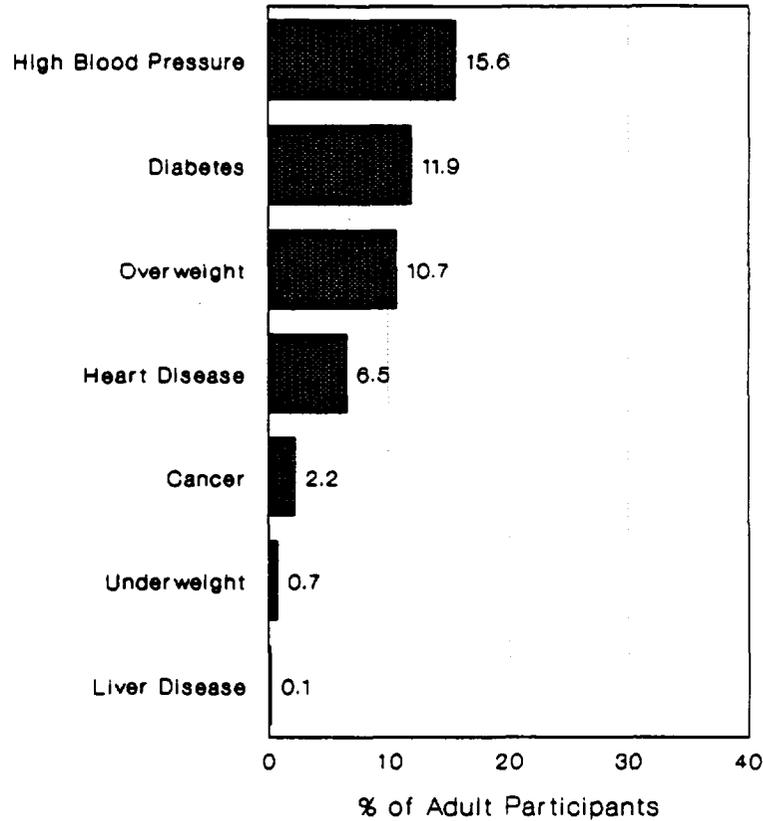


Sample of 757 survey households.

Another means of reporting these data is to examine the reported health problems of *individuals* in the FDPIR household sample who reported having at least one diagnosed nutrition-related health prob-

<sup>26</sup>Consistent with public health reports, we define an adult as being over 16 years of age.

Exhibit III.24  
Nutrition-Related Health Problems Among  
Individual FDPIR Participants



Sample of 1,617 persons over 16.

lem. This approach allows estimates of prevalence rates (e.g., the number of individuals with a specific health problem, per 1,000 individuals in the study population).<sup>27</sup> In all, about 25.7 percent of all adults in FDPIR households had one or more medically diagnosed, nutrition-related health problems. As Exhibit III.24 indicates, high

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<sup>27</sup>For ease of presentation, we report our findings as percentages of the study population (per 100 individuals) rather than as prevalence rates (per 1,000 individuals). All figures are reported for adults (over 16 years of age), since adults are the overwhelming majority of individuals reporting these conditions. (Two children in the survey sample were reported to have heart disease, one of these same children had hypertension, and 18 children were reported to be overweight.)

blood pressure was reported at a rate of 15.6 percent of the adult FDPIR household population (all individuals above 16 years of age).<sup>28</sup> Diabetes was reported at a rate of 11.9 percent, obesity was reported at a rate of 10.7 percent of the adult study population, and less than one percent of the adults was reported to be underweight. Diagnosed heart disease was reported among 6.5 percent of the adult population.

Exhibit III.25

Concurrent Nutrition-Related Health Problems  
Among Adult FDPIR Participants

Secondary Health Problem	Percentage of Adult Household Members Reporting Primary Nutrition-Related Health Problem*		
	Hypertension	Diabetes	Heart Disease
Hypertension	--	44.9	47.1
Diabetes	34.2	--	34.2
Heart Disease	19.8	18.9	--
Overweight	32.7	33.9	26.5

\*Column percentages do not sum to 100% because some individuals are affected by multiple health problems, while others are not.

For those individuals reported to have one nutrition-related health problem, the chances of having one or more recognized additional problems were significant. For example, as shown in Exhibit III.25, among those with hypertension, 34.2 percent also had diabetes, 19.8 percent reported heart disease and 32.7 reported being overweight. Among diabetics, 44.9 percent reported being hypertensive, 18.9 percent had diagnosed heart disease and 33.9 were overweight. Among those with heart disease, 47.1 percent reported having hyper-

<sup>28</sup>A 1985 estimate of high blood pressure in the U.S. general population for all ages is 12.3 percent.

tension, 34.2 percent had diabetes and 26.5 were reported to be overweight.

These same nutrition-related problems were identified by participants in each of the three FDPIR focus groups as health issues of significant concern to their reservations. Further, participants were aware of many of the risk factors related to high blood pressure and diabetes, which includes obesity. While there was a general awareness of these problems and some of their underlying causes, there also were misconceptions and a lack of information related to improving dietary habits. Participants expressed a sense of helplessness regarding effecting necessary changes in their lives and a need for further health and nutrition education. The areas of particular concern to participants were: alternative means of coping with stress; changing negative personal habits which reinforce overeating; and getting family members to provide support for changes in dysfunctional eating patterns. These reported needs go beyond the scope of services provided under current program regulations.

In addition, focus group participants reported that foods recommended by health professionals either were not available or cost too much. For example, lean meats and fresh fruit were considered both expensive and difficult to obtain. Finally, environmental and social factors often reinforced patterns of overeating. To cite one example, all of the communities within which focus groups were held often used food as an important focus for community social events, such as "feasts" and "pow-wows." Many of the foods prepared for these events were fried or were high in fat and refined carbohydrates. Focus group participants reported that such settings make improved dietary behavioral change difficult if not impossible to achieve.

Focus group participants were aware that many individuals within their communities were obese and that this had become a serious problem in recent years. Interestingly, a number of focus group participants viewed themselves as either not overweight or as slightly overweight but otherwise in excellent health, when by observation they were clearly overweight. This apparent discrepancy may reflect two factors at work. First, there is a culturally reinforced opinion among American Indians that a generally heavy physique is an appropriate "healthy" body weight. This opinion may reflect, in part, a theorized physiological predisposition among American Indians to more efficiently store excess energy as fat, resulting not only in

obesity, but also in Type II diabetes and hypertension.<sup>29</sup> Second, this response also may be viewed within the context of a classic underreporting of obesity which is typical of self-reported US survey data.

Systematic, current information on nutrition-related health problems among the general American Indian population with which to compare our results is not available. Instead, we found several recent studies of specific Indian tribes which provide limited and varied prevalence data.

Estimates of diabetes among selected tribes range widely, from about 25 percent among the Apache to over 50 percent among adult Pima Indians. In a 1986 report by the University of North Dakota School of Medicine, approximately one in three US American Indians aged 40 or older was reported to be diabetic.<sup>30</sup> In a recent study submitted for publication, diabetes rates among the North Carolina Cherokee were reported to be 4.8 percent for ages 25 to 45, 25.5 percent for ages 45 through 64, and 29.4 percent for ages over 65.<sup>31</sup> These rates are about five times the US general population rates for ages less than 65 and three times the US rates for ages over 65. In comparison, we found about 12 percent of FDPPIR adult members aged 16 or over with diagnosed diabetes.

Recent reports of obesity rates among adult American Indians vary from about 30 percent to over 75 percent on selected reservations. Lee et al. reported that 75 percent of over 1,800 American Indians

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<sup>29</sup>Researchers have suggested that in response to the continual environmental challenges of "feast and famine" in the past, American Indians may have developed a propensity to be at increased risk of obesity and diabetes. Called the "thrifty gene" theory, these researchers have speculated that survival may have depended, in part, on the body's ability to rapidly store fat during times of plenty which then enabled it to better sustain prolonged fasting. During modern times, as food has become more abundant, individuals with "thrifty genes" more readily have become obese and prone to Type II diabetes.

<sup>30</sup>Select Committee on Hunger, House of Representatives. Hunger and Nutrition Problems Among American Indians: A Case Study of North Dakota. One Hundredth Congress, First Session, hearing held in New Town, North Dakota, July 10, 1987, US Government Printing Office, 1987.

<sup>31</sup>Dr. Mary Anne Farrell, MD, Indian Health Service Hospital, Cherokee, North Carolina, personal communication, March 1990.

from ten Oklahoma tribes were obese. On average, they weighed 145 percent of Ideal Body Weight.<sup>32</sup> In contrast, 10.7 percent of FDPIR adult participants reported diagnosed obesity, while the rate for the general US adult population is about 25 percent.

Available comparison data on high blood pressure and heart disease are very limited. The most recent reported rates of these diseases among the US general population (for all ages) are 12.3 percent and 7.8 percent, respectively.<sup>33</sup>

Not surprisingly, for two of the three major chronic health problems (e.g. diabetes and obesity, but not hypertension), the self-reported survey figures reported here fall below estimates generated by health officials and researchers. In fact, these low prevalence estimates from self-reported data conform to previous self-reported survey experiences. That is, respondents may be unaware of underlying medical problems or may misinterpret known symptoms. Lower reported rates of diabetes, in turn, may reflect the fact that a clinical test is required and generally is not applied unless there are medical complications suggesting diabetes. Remember that respondents were asked only for health problems that had been confirmed by a health professional. The relatively low rates of reported obesity conform to the cultural and individual biases described above, although its diagnosis is an uncomplicated procedure and should result in relatively higher rates being reported. Finally, higher rates of hypertension may reflect easier diagnostic procedures which are more readily available to the public.

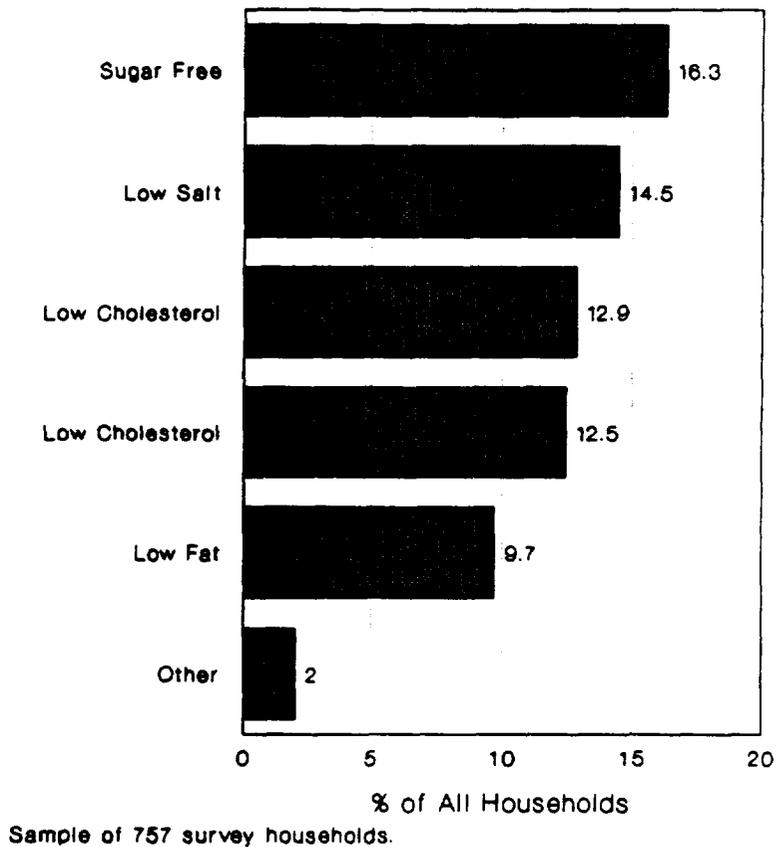
Exhibit III.26 summarizes the proportions of households reporting at least one household member on a special diet prescribed by a health professional. In all, approximately one out of four households participating in FDPIR had at least one member who was prescribed a special diet. These rates are lower than those reported for diagnosed nutrition-related health problems, though certainly they are not insignificant in scale.

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<sup>32</sup>Lee, E.T., et al., "Diabetes, Parental Diabetes and Obesity in Oklahoma Indians." Diabetes Care, Vol. 8, No. 2, pages 107-113, March-April 1985.

<sup>33</sup>National Center for Health Statistics, D.A. Dawson and P.F. Adams: Current Estimates from the National Health Interview Survey, US, 1986. Series 10, No. 164. DHHS Pub. No. (PHS)87-1592. Public Health Services, Washington, GPO, October 1987, Table 57, page 86.

Exhibit III.26  
Medically Prescribed Diets Among  
FDPIR Households



It is difficult to determine if all of those with nutrition-related health problems actually received an appropriate and corresponding diet prescription from a health professional. Depending upon the medical condition, between 32 and 52 percent of the individuals who were diagnosed with a nutrition-related health problem did not report receiving a specialized diet. This may reflect the fact that respondents did not know about or recall diet prescriptions, did not receive one because of other mitigating medical circumstances, or should have received a prescribed diet but did not.

In summary, over one-half (53.9 percent) of the FDPIR households reported having a least one adult with a nutrition-related health problem and over one-quarter had at least one household member who received a prescribed diet from a physician or other health professional. The self-reported rates for diabetes and obesity were lower than clinical estimates reported in the literature, while the self-

reported rate for hypertension was higher than recent published rates.

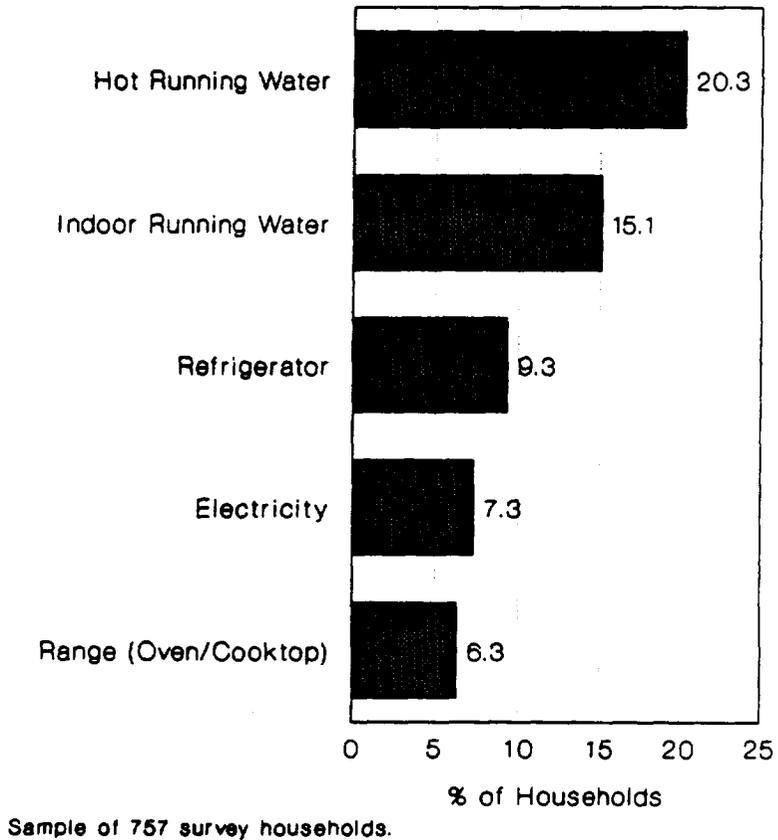
**Household food storage and preparation facilities.** The dietary needs of the study population are a function of multiple factors, such as age, health status and physical activity. Another factor that influences dietary status is the effective utilization of foods. This, in turn, depends upon adequate household food storage and preparation facilities.

Survey results indicate that most FDPIR households have adequate storage and cooking facilities. However, some FDPIR households reported the lack of at least one of five basic household facilities. These data are summarized in Exhibit III.27. One-fifth of the program population (20.3 percent) reported not having hot running water in their home, and 15.1 percent reported no running water of any kind within their home. Three-quarters (75.4 percent) of those reporting that their households lacked running water lived in the Western Region, and 38.4 percent of all Western Region FDPIR households did not have indoor running water.

About 9.3 percent of the FDPIR survey households reported having no refrigerator, with 90 percent of those households located in the Western Region. Of the 7.3 percent that reported they had no electricity, 91.8 percent lived in the Western Region. In total, over one-fifth (22.6 percent) of all FDPIR households located in the Western Region had no electricity. Of the 6.3 percent that reported they did not have either an oven or cooktop stove, 65.4 percent of the households lived in the Western Region.

The estimate of about 15 percent of all FDPIR households having no indoor running water and 9 percent having no refrigeration of any kind would suggest that for a number of program participants food storage and preparation facilities are not adequate. In these cases, the nature of commodity food packaging becomes particularly important to a healthful diet. Most commodity food items are available in containers which permit safe maintenance at room temperature without risk of spoilage prior to usage. However, for many foods (i.e., canned fruits, vegetables and meats), once they have been opened refrigeration is essential to prevent spoilage and the risk of food borne illness. This may be a particular problem among smaller households which cannot consume the contents of a single commodity container in one meal. Some commodity dairy products also require refrigeration (i.e., butter and cheese). For about 10 percent

Exhibit III.27  
FDPIR Participant Households Lacking  
Food Storage/Preparation Resources



of the program population with limited food storage and preparation facilities (see Exhibit III.27), specific consideration should be given when they select commodity items, and, ideally, during nutrition education.

**Food Preferences** One of the primary objectives of this study was to assess FDPIR participants' satisfaction with items in the food package which they had been offered. Acceptability of commodities affects the extent of their contribution to household diets. If the items are not liked they may not be fully used.

Food preferences were assessed only for items that are generally available through the program (actual availability may vary month-to-month and, as discussed in Chapter II, across local programs). Respondents were asked which of about 69 individual food items within 15 different commodity food groupings they liked most (first and second preferences) and if they disliked any of those foods. If they stated that they disliked an item, they were asked to say why they did not like it. In those food groupings in which only two food items were listed, respondents were asked to identify only one most liked item. In all, a sample of 757 FDPIR participants described their food preferences.

Respondent preferences are presented in the following exhibits. The charts show the percentages of respondents who (1) expressed a preference (most liked or second most liked are summed together) for an item within a food group, and (2) selected items they disliked. The accompanying text explains the overall results, and where appropriate, major regional variation in food preferences (a detailed summary of food preferences by region is provided in Volume 2). The reported commodity dislikes also are presented, including the primary reasons for dissatisfaction. This discussion also summarizes the commodity food preferences described by participants in the three focus group discussions.

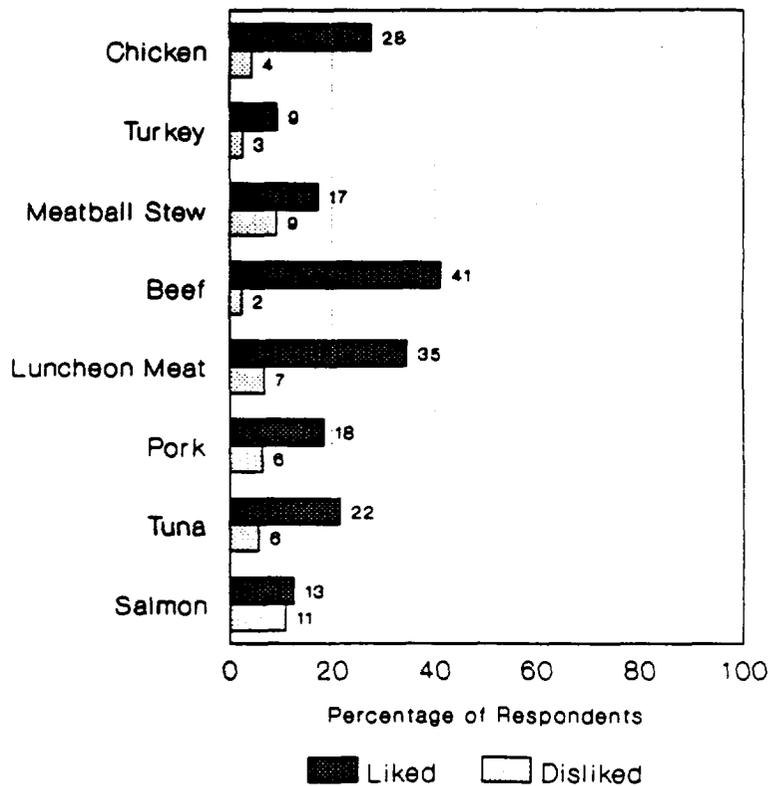
Generally, respondents expressed much stronger preferences for commodity items than dislikes. With few noted exceptions, food items were liked by substantially more respondents than were disliked. One-fourth of the survey respondents (23.8 percent) did not express a dislike of any item in the FDPIR package. Many others reported disliking only selected food items. Among those who reported dislikes, the vast majority of responses pertained to taste with half to three-fourths of all opinions within any food group being "I don't like the taste." In fact, no particular concern other than taste was expressed by five percent or more of the full respondent sample

Finally, reported food dislikes did not reveal any problematic food items or groups.

**Canned Meats** For canned meats and fish, beef and luncheon meat were the first and second most liked products, with chicken a close third, followed by tuna (Exhibit III.28). Salmon and meatball stew were reported to be the least liked items in this group, although more respondents preferred these items than disliked them. Among canned meats, geographic region was important in the selection of most and least liked items. (These results are graphically displayed in Volume 2 of this report.) For example, in the Southwest Region, a higher percentage of individuals reported most liking pork and a smaller percentage reported liking luncheon meat, while in the Mountain-Plains Region, luncheon meat was most liked by the highest percentage of respondents, while chicken was least often mentioned as a most liked item.

Over one-third (36.9) of respondents provided reasons for dislikes of specific canned meats. These included: do not like the taste (44.1 percent); too much fat and grease, or too rich (12.5 percent); smells and/or looks bad (8.2 percent); and, too salty (6.5 percent).

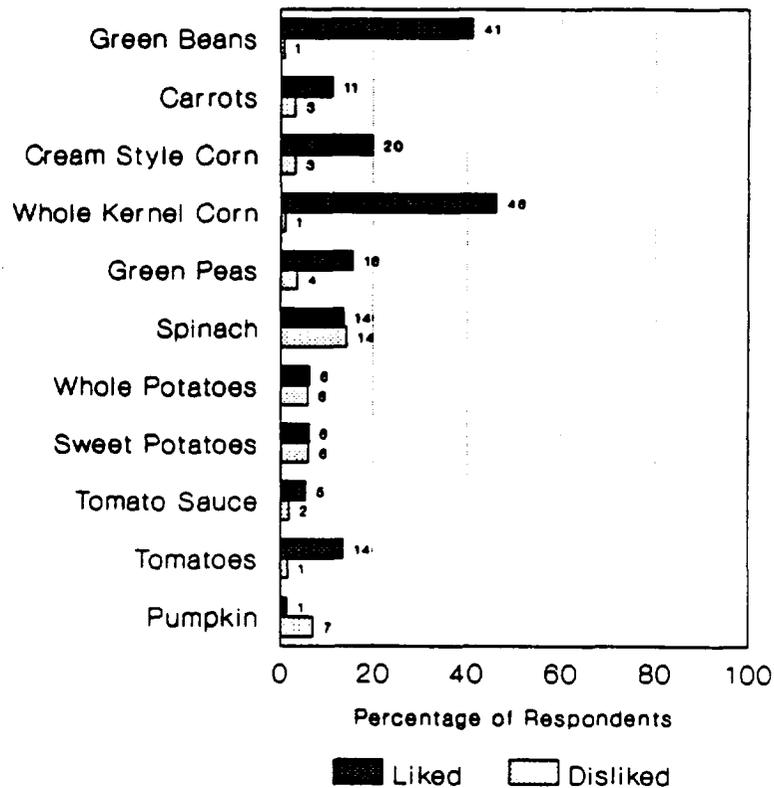
Exhibit III.28  
 Preferences Within Food Groups:  
 Meats



**Canned Vegetables** Among the canned vegetables listed in the following exhibit, whole-kernel corn and green beans were clearly the first and second most liked commodity items, respectively, with green beans particularly liked in the Northeast and Southeast Regions. Canned spinach was most disliked, followed by canned pumpkin. For spinach, whole potatoes and sweet potatoes, the number of respondents who most liked these items were about equal to those who disliked them, largely reflecting apparent differences in personal taste.

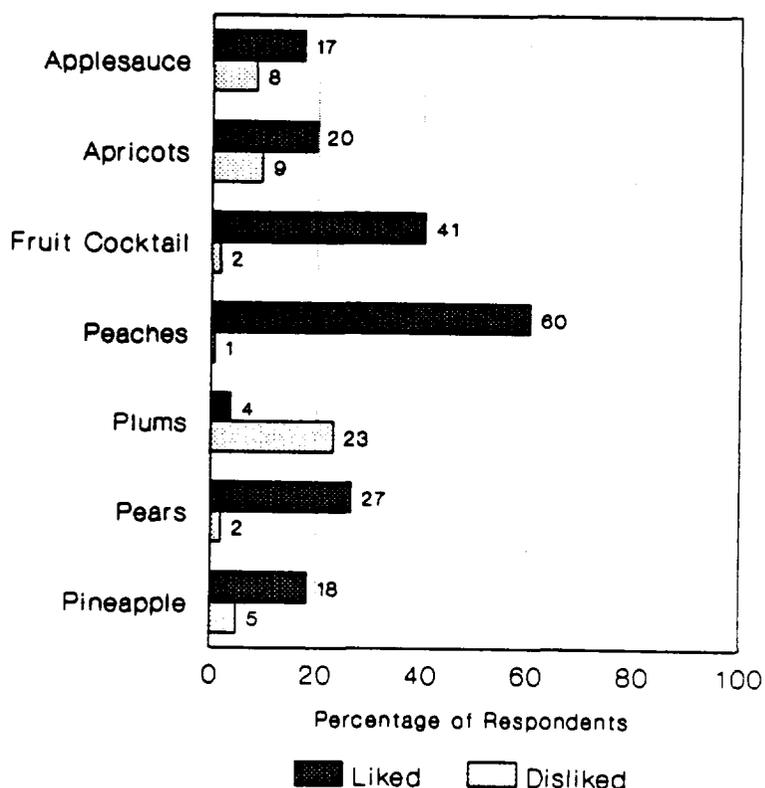
One-third (33 percent) of respondents provided reasons for their dislike of particular canned vegetables. The overwhelming majority of respondents (77.2 percent) did not like the taste. Many fewer respondents (4.8 percent) said they didn't know how to prepare it.

Exhibit III.29  
 Preferences Within Food Groups:  
 Vegetables



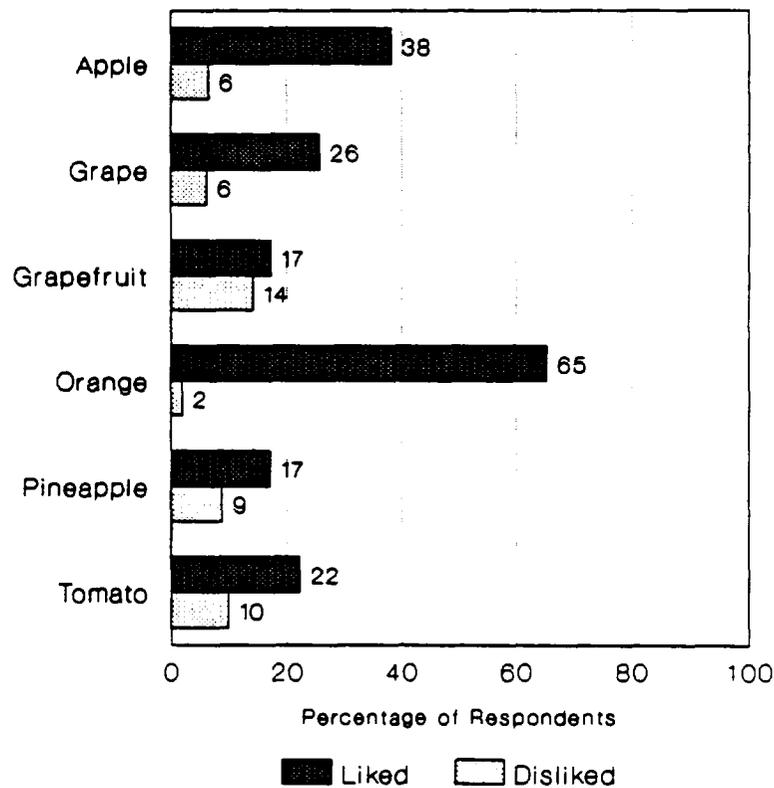
**Canned Fruit** Among the canned fruits, peaches and fruit cocktail clearly were the first and second most liked canned fruits available through the program, particularly in the Western, Mountain-Plains and Southwestern Regions (Exhibit III.30). Almost half of those interviewed in the Southwestern Region listed peaches as their favorite canned fruit. Plums were reported to be the least liked canned fruit, especially in the Midwestern Region. Of the 269 respondents who described their dislikes of any of the canned fruits (35.5 percent of the survey sample), most (65.8 percent) did not like the taste, and a smaller number (11 percent) thought that they were too sour.

Exhibit III.30  
 Preferences Within Food Groups:  
 Fruits



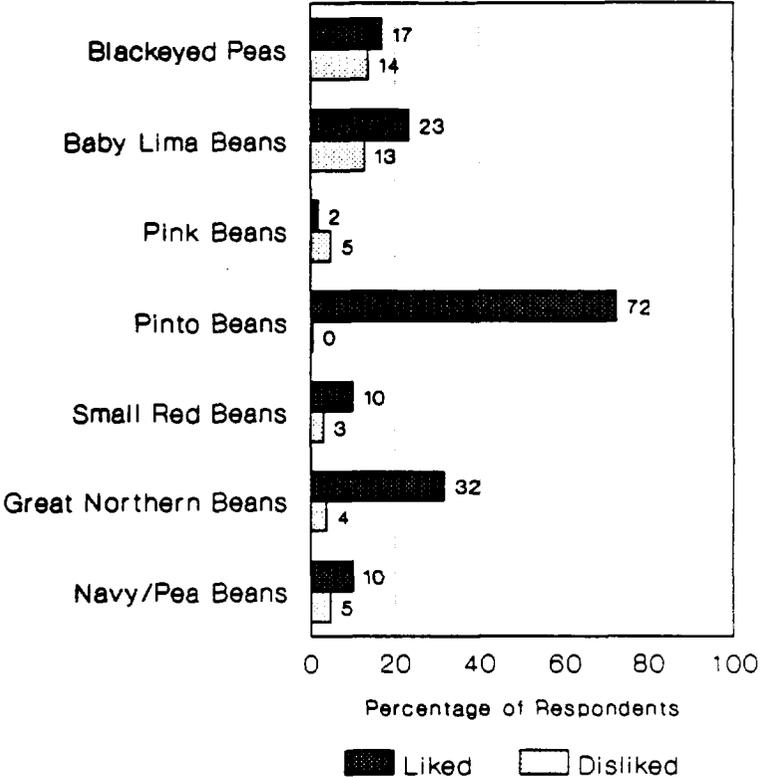
**Canned Juices** Among the canned fruit juices noted in the following exhibit, orange and apple juice were the first and second most liked juices available through the program, while grapefruit juice was liked least by participants (Exhibit III.31). However, slightly more respondents reported liking grapefruit juice than those who reported that they disliked it. Thirty-five and a half percent of the respondents reported the reasons for disliking a particular juice. Over one-third (37.5 percent) of these respondents did not like the taste, and another 33.5 percent stated that the juices were too sour. Over ten percent (11.2 percent) thought the juices were too sweet, and 8.6 percent said that juices gave them heartburn.

Exhibit III.31  
 Preferences Within Food Groups:  
 Juices



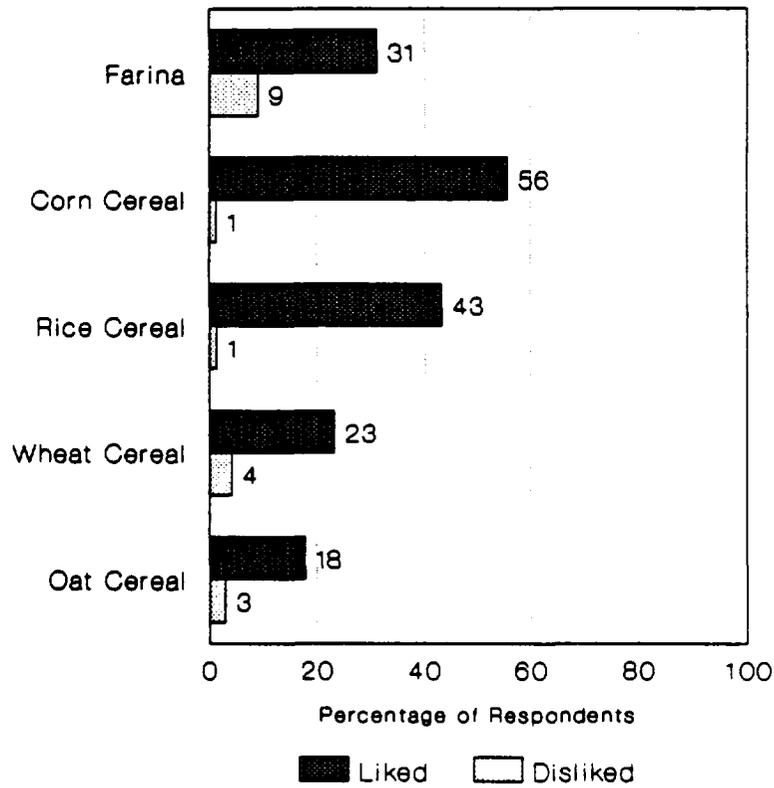
**Dried Beans** As Exhibit III.32 indicates, survey respondents selected pinto beans first, and great northern beans second among their most liked dried beans. Given the similarity of pinto beans and pink beans, the latter's very low rating is puzzling. Almost no respondents mentioned a preference for pink beans, and this may indicate a lack of familiarity with, or unavailability of, the product. The least liked dried beans were blackeyed peas, particularly in the Midwest, Mountain-Plains and Western Regions, although the overall strength of this dislike was relatively weak. Lima beans were most frequently disliked in the Western Region.

Exhibit III.32  
 Preferences Within Food Groups:  
 Dried Beans



**Cereals** The cereal most liked by respondents was corn cereal (Exhibit III.33). It was followed very closely by rice cereals. Farina appeared to be particularly liked in the Western Region. Only 14.8 percent of respondents provided a reason for disliking a specific cereal, and the overwhelming reason was that they disliked the taste (67 percent).

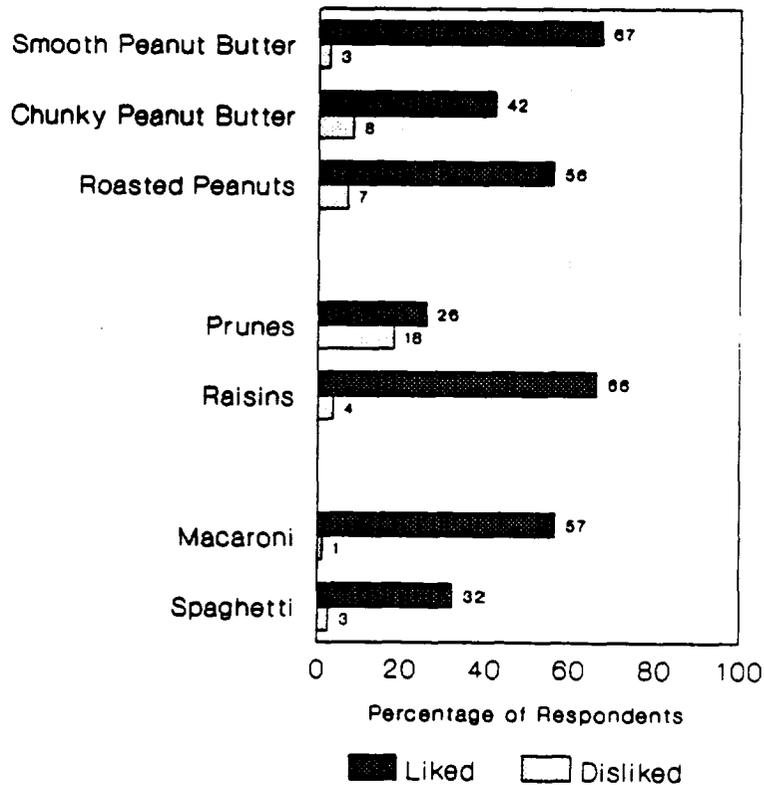
Exhibit III.33  
Preferences Within Food Groups:  
Cereals



**Peanut Products** Exhibit III.34 presents preference results for three separate food groups. Among the peanut products, smooth peanut butter was the most frequently liked with few dislikes reported for any of these items. Roasted peanuts were particularly liked in the Northeast and Southeast Regions, and smooth peanut butter was generally preferred to the chunky form and to roasted peanuts among participants outside the Southeast and Northeast. Of the 15.2 percent of respondents who provided reasons for disliking a peanut product, the most frequent statement (41.7 percent) was that they could not chew the product due to dental problems. About one-quarter (22.6 percent) said they did not like the taste.

**Dried Fruits** Respondents indicated a strong preference for raisins, compared to prunes, and more were inclined to express a dislike for prunes. It should be remembered that for a food group with two items, only one preference was requested. However, the exhibit below does indicate that prunes are liked by approximately one-fourth of all FDPFR households. Of the 146 respondents who said why they disliked dried fruits (19.3 percent of the survey sample), two thirds (66.4 percent) said they didn't like the taste, and 7.5 percent said they didn't know how to prepare them.

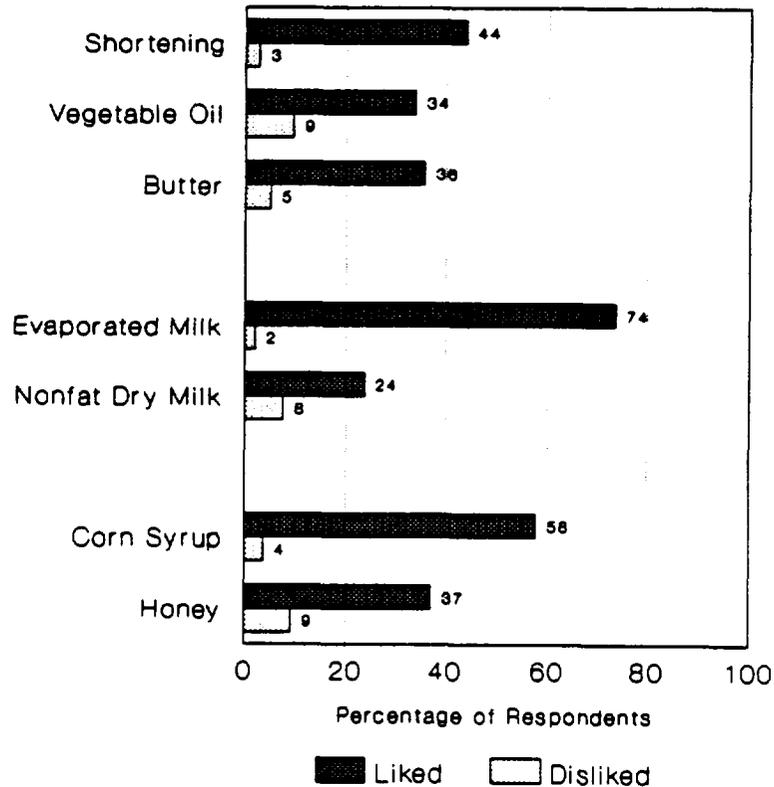
Exhibit III.34  
 Preferences Within Food Groups:  
 Three Different Groups



**Pasta** Exhibit III.34 also summarizes preferences for two types of pasta. Macaroni was most liked by a higher proportion of respondents in the Western Region, and it was generally preferred to spaghetti. Very few dislikes were reported for either product (2.8 percent of the respondents).

**Fats, Milks and Sweeteners** In Exhibit III.35, preferences for seven food items are summarized (with separate comparisons made for each of the three food groups). Preferences were roughly equivalent across the three fats (shortening, vegetable oil and butter). Shortening was most frequently listed as a liked item in the Western Region. Vegetable oil was liked most frequently in the Northeast and Southeast Regions and disliked most frequently in the Western Region. Butter was most often liked in the Midwest Region.

Exhibit III.35  
 Preferences Within Food Groups:  
 Fats, Milks, and Sweeteners



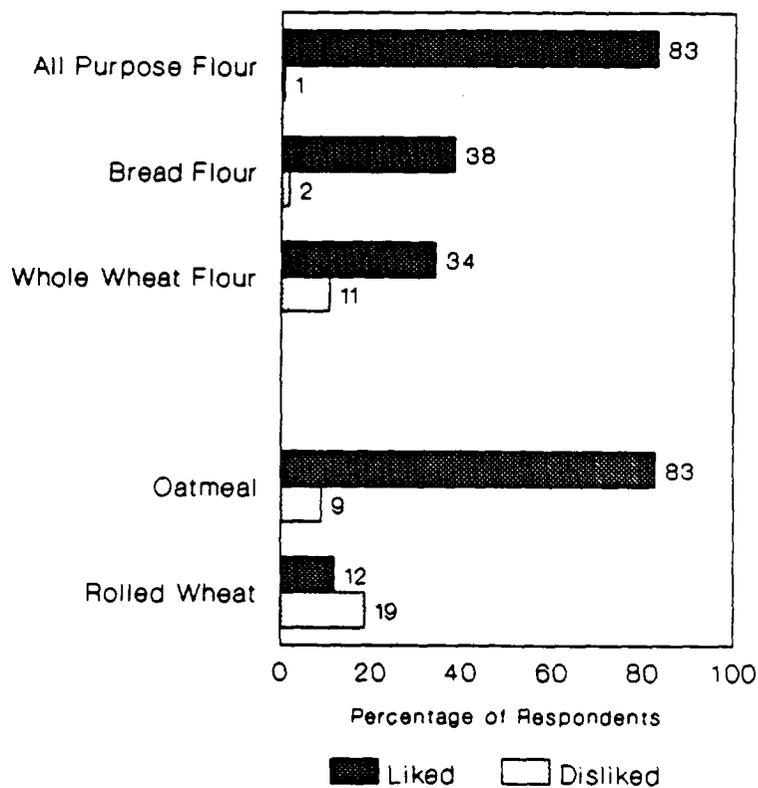
Evaporated milk was most frequently liked when compared to nonfat dry milk, and was most often liked in the Midwest Region. Corn syrup was reported liked more frequently than honey, although honey was very well liked in the Northeast, Southeast and Western Regions.

None of these items scored high as a disliked food item. Dislikes for food items within the three food groupings mostly were related to not liking the taste of a particular item. For the 107 respondents (14.1 percent of all respondents) who gave a reason for disliking an oil, 40.2 percent did not like the taste, 18.7 percent thought the product was too oily and/or greasy, 10.3 percent wanted to eat less fat and oil, and 9.3 percent did not like the smell. Only 62 respondents (8.2 percent of survey sample) stated a reason for not liking a milk product, and the most important reason was that they didn't like the taste (61.3 percent). A little over ten percent of this group (11.3 percent) thought that they received too much to use in a month, and another 9.7 percent reported that they didn't know how to use it. Finally, for the 11.2 percent of the sample stating a dislike for a sweetener, most (47.1 percent) did not like the taste, fewer thought that they were too sweet (28.2 percent) and even fewer (15.3 percent) thought that they received too much.

**Flours and Hot Cereals** All purpose flour was most frequently liked compared to bread flour and whole wheat flour (Exhibit III.36). In the Western Region, bread flour was particularly liked while all-purpose flour was selected as most liked less frequently than in other regions. The two main reasons for disliking a flour product, among the 84 respondents (11.1 percent of the survey sample) who provided a reason, were that they did not like the taste (44 percent) and they did not know how to prepare it (29.8 percent).

FDPIR participants showed a clear preference for oatmeal over rolled wheat. In fact, more respondents reported disliking rolled wheat than liking the product. Specific dislikes for rolled grains among the 19.2 percent of all respondents who provided their reasons were; do not like the taste (25.5 percent) and do not know how to prepare (16.6 percent).

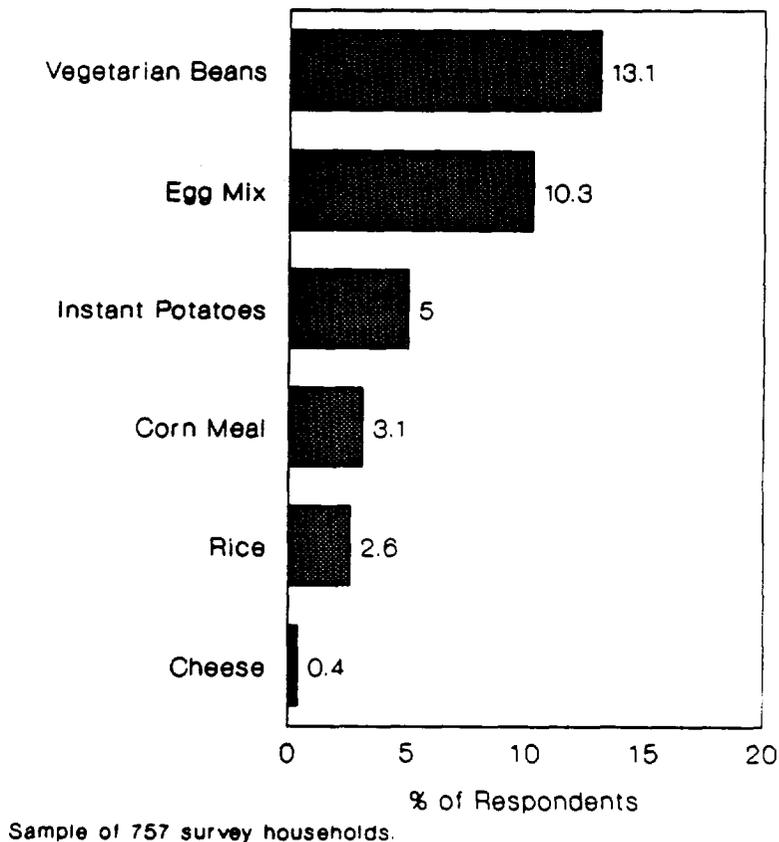
Exhibit III.36  
 Preferences Within Food Groups:  
 Flours and Hot Cereals



**Miscellaneous Foods** Several commodities are offered as individual items without alternative choices (Exhibit III.37). They are cheese, egg mix, vegetarian beans, rice, instant potatoes and cornmeal. Respondents were simply asked if they experienced problems with any of these commodities. The exhibit below summarizes the extent to which respondents expressed their dislike for each item. Reports of dislike generally were infrequent. The only items for which respondents expressed a noticeable dislike were the vegetarian beans and egg mix. This is consistent with the results of the focus group discussions, in which participants reported their dislike of both products.

Of the 201 respondents providing a reason for disliking one of these food items, most (72.6 percent) did not like the taste, and 12.9 percent reported that they did not know how to prepare the item.

Exhibit III.37  
Expressions of Dislike for  
Specific Commodities



**Food Preferences: Focus Group Discussion** During FDPIR focus groups, participants were asked which of the entire listing of available food items were most liked, least liked, what other foods were important to their diets, and what foods they would have liked but were unable to acquire, for whatever reason.

Based on the results of the three focus group discussions, the most frequently identified commodity food items that were liked included canned fruits, canned vegetables, fruit juices and butter. Food items identified as liked by two out of three focus groups included canned meats, peanut butter, cheese and cereals. While two out of three focus groups stated that one of their most liked items was canned meat, all three groups stated that they disliked the strong flavor, and the high fat and salt content. Participants suggested that these items be packaged or processed differently to improve their acceptability and nutritional quality. All focus groups agreed that the least liked food item was the vegetarian beans, with mixed preferences related to other types of beans. Bean preferences appeared to be regional, with different beans liked and disliked in different regions. For example, neither black-eyed peas nor limas were well liked in Wisconsin.

A number of food items were identified by focus group participants as important to their households' diets, but not received through the program. The most commonly reported foods were fresh vegetables, fresh meats, fresh milk, eggs, sugar, and other beverages. Participants also expressed a desire for seafood that is generally not available in local markets or cost too much to purchase. The canned salmon occasionally offered by the program was reported to be a highly preferred commodity which generally was not available to participants. However, the focus group preference for fish may or may not accurately reflect national FDPIR preferences, since two of the three focus groups were conducted in communities with a strong fishing tradition.

### **C. SUMMARY AND CONCLUSIONS**

Using data from the FDPIR household case records and interviews with participants, we developed a detailed profile of a nationally representative sample of households that received commodities in September 1989. We also examined indicators of dietary need based on survey respondents' reports of the adequacy of their food supplies, expenditures for food, food preparation and storage facilities, and self-reports of nutrition-related health problems. This assessment

also included asking participants which items in the FDPIR food package they liked the most, and which, if any, they disliked.

## **Participant Profile**

The profile of FDPIR participants provides information in four areas—household composition, characteristics of household members, household income and assets, and access to services.

**Household Composition.** While the FDPIR program serves a wide range of household types, several interesting profiles of participating households emerged in the study. A large proportion of the program caseload consists of small households. On average, FDPIR households contained 3.2 persons, and about 40 percent of the sample were one- or two-person households.

About half of households included children, and most of these children lived in households with an adult male and an adult female (i.e., a couple). The vast majority of large households (with five or more members) was made up of couples with children. We found many fewer single-parent households in the sample (about 10 percent). Female-headed single-parent households, which make up 46.7 percent of the US low-income families, constituted only 8.5 percent of FDPIR caseload. Part of the reason for this may be the tendency among families receiving AFDC to participate in the Food Stamp Program rather than FDPIR.

A substantial proportion of FDPIR households included older persons. More than one-third (38.9 percent) of all households included an elderly person (that is, someone aged 60 or older). In fact, the elderly accounted for 62 percent of the one-person households.

Half of the FDPIR households with an elderly member also included non-elderly members. However, about one-third of the elderly households were persons living alone. The remainder of elderly households consisted of two or more elderly persons living together. The prevalence of elderly participants, especially those living alone, presents a challenge for delivery of food assistance services.

**Characteristics of Household Members.** Program data indicate that more than 135,000 individuals in 44,442 households participated in FDPIR during September 1989. Survey data indicate that individual participants were evenly divided by gender. However, male participants tended to be younger, generally reflecting the larger number of female-headed households, including elderly women who lived alone. Adult female and male participants did not differ with regard

to their level of education. More important, however, approximately half of each group had less than 12 years of education.

Survey data indicated that over 40 percent of the adult FDPIR participants were either working, looking for work, or laid off from a job during September 1989. The group most likely to be employed in September 1989 was persons aged 30 to 59. One-third of this group were working compared to one-fourth of the younger adults aged 18 to 29. Consistent with these findings, more than one-fourth of the youngest adults were those most likely to be looking for work or to have been laid off. Also, nearly one in six of this group was attending school. Over one-fourth reported that they were keeping house. Nearly one-fourth were retired or disabled. We also found that the age of participants was related to their reported activities. Among the elderly, for example, fewer than one in ten were working, laid off, or looking for work. Two out of five were described as retired and one out of five was disabled. Most of the remaining elderly were said to be keeping house.

**Economic Status.** Consistent with the income-eligibility guidelines established for FDPIR, income levels for the sample households were very low. FDPIR case record data indicate that one-third of the households had gross income equal to 50 percent or less of the poverty level established for 1989, and more than half had income no greater than 75 percent of poverty. Nearly one in ten households, did not have any income, according to their case records.

The low level of income among FDPIR households existed in spite of the fact that one-third of the households had earnings (wages or income from self-employment). Also, about one in twenty were receiving unemployment benefits related to recent employment. In addition, a substantial group of households had income related to past employment of a household member. Nearly three in ten households had income from Social Security and a few (3.4 percent) had pension income. The military service of some FDPIR participants is reflected in the receipt of veteran's benefits by 7.4 percent of the households. More than a third of the sample households received income from AFDC, Supplemental Security Income (SSI), or General Assistance.

The impoverishment of FDPIR households is reflected in their level of liquid assets as well as their income. More than three-fourths of the household case records indicated no cash on hand and nearly as

many showed no financial assets of any kind. Among the households that had liquid assets, more than half indicated that they had less than \$50, typically in a checking account or cash in hand. Thus, the financial assets of these households were generally well below the asset limits established for FDPIR eligibility.

**Access to Services.** One of the assumptions underlying the establishment of FDPIR was that the remote location of reservations and the wide dispersion of population within them made it difficult for many American Indians to reach grocery stores and public agencies. One of the objectives of the study, therefore, was to determine how far participants have to travel to reach the commodity distribution site, food retail outlets, and (if they were to apply for food stamps) the nearest food stamp office.

Although there was some regional variation in travel distances, the average distance each way to these destinations was approximately 10 miles or less for households in almost all regions. The nearest food store was usually within four to five miles of participants' homes, whereas obtaining fresh meat and vegetables required driving to a store four to eight miles away. Commodities usually could be obtained at a site located six to nine miles from the participant's home. However, for as many as one out of five households, travel distances to obtain commodities exceeded 20 miles.

Given their relatively remote places of residence, it is clear that transportation is important to FDPIR participants. Overall, nearly one-fourth of all sample households reported that they very often had difficulty getting where they needed to go. More than two-thirds of participant households owned a car or truck. Among these households, only one out of six (one-tenth of all households in the sample) very often had difficulty getting where they needed to go because of problems with their cars or trucks. However, more than half of all households that owned a vehicle reported that they sometimes could not travel because they lacked money to buy gas.

Households without vehicles were much more likely to experience difficulty getting where they needed to go. Four out of ten households in this group (one out of eight sample households) reported that they very often had problems getting where they needed to go because a car or truck was not available, or because they could not get a ride. Also, nearly two-thirds said that they sometimes lacked money to pay someone to drive them.

## Dietary Need

To study dietary need, we examined the adequacy of FDPIR household food supplies, the availability of food preparation and storage facilities, and nutrition-related health problems. Each issue is discussed below.

**Adequacy of FDPIR Household Food Supplies.** In order to assess the adequacy of the FDPIR household food supply, we studied three sets of measures: food expenditures; other important sources of food that had not been purchased or obtained through FDPIR; and, the perceived food needs of FDPIR households. FDPIR households included in this study spent an average of \$31 per month per household member for food to supplement the commodities they received. About

Seven out of eight respondents (88 percent) reported that their household had enough to eat during the survey reference month, but some did not always have the kinds of food that they wanted. One out of eight respondents reported that they sometimes or often did not have enough food to eat. Four out of five households in this group said that there were days when they were without food or money to buy food. On average, these households did not have enough to eat for one day out of every five or six days. Two-thirds of these households also skipped an average of over four days of meals per month.

Self-reports of inadequate food supplies varied greatly by region. One-quarter of all FDPIR households in the Western Region reported they sometimes or often did not have enough to eat, and they represented three out of five of all FDPIR households reporting this. Also, nearly three-fourths of the FDPIR households who reported that they had to skip meals "because there wasn't enough food or money to buy food" were from the Western Region.

**Food Preparation and Storage Resources.** Most FDPIR households had adequate storage and food preparation facilities. However, some FDPIR households reported the lack of at least one of five basic facilities. One-fifth of the sample program participants reported not having hot running water in their home, and 15 percent reported no running water of any kind within their home. About 7.3 percent of sample households reported they had no electricity, 9.3 percent reported having no refrigerator, and 6.3 percent reported they did not have either an oven or cooktop stove.

The availability of basic housing facilities and food preparation and storage resources also varied by region, with the Western Region having a disproportionate number of FDPIR households lacking basic resources. Three-fourths of those reporting that their households lacked running water lived in the Western Region. (More than one-third of all Western Region FDPIR households did not have indoor running water.) Of those households reporting they had no electricity, nine out of ten lived in the Western Region, representing over one-fifth of all FDPIR households located in that region. Of the FDPIR households reporting no refrigerator, nearly all (90 percent) were located in the Western Region. Finally, two-thirds of those who reported they did not have an oven or cooktop stove lived in the Western Region.

**Nutrition-Related Health Problems.** In total, just over half of all FDPIR households had at least one adult (a person 16 years old or older) with one or more nutrition-related health problems. More than one out of four FDPIR households had at least one member who had been prescribed a special diet by a health professional. Almost one-third of all households reported at least one person with diagnosed high blood pressure, about one-quarter with a member having diagnosed diabetes and over one-fifth with at least one overweight household member. For diabetes and obesity, prevalence rates based on self-reports by survey respondents fell below estimates among American Indians generated by health officials and researchers.

These same nutrition-related problems were identified by focus group participants as health issues of significant concern to their reservations. Further, participants were aware of many of the risk factors related to high blood pressure and diabetes, which includes obesity. While there was a general awareness of these problems and some of their underlying causes, there also were misconceptions and a lack of information on how to improve dietary habits. Participants expressed a sense of helplessness about making necessary changes in their lives and the need for further health and nutrition education.

**Food Preferences.** Within each of 15 commodity food group (juices, fruits, vegetables, and so on), respondents indicated which of 69 items they clearly preferred. It was notable that the number of respondents indicating a strong preference for any given item far exceeded the number expressing dislike for that item. Also, in the vast majority of cases, expressions of dislike represented personal taste (for example, perceiving an item as too sour or too sweet) rather than perceptions of poor food quality. No particular concern other than taste was mentioned by five percent or more of the respondents.

## **Chapter IV**

### **FDPIR PARTICIPANTS AND THE FOOD STAMP PROGRAM**

When the Food Stamp Act of 1977 was enacted, Congress decided to continue providing commodities to low-income persons who had been served by the Needy Families Program, rather than consolidating nutrition assistance under the Food Stamp Program. The program was given a new name, the Food Distribution Program on Indian Reservations (FDPIR), and over the next few years, was given additional resources. As a result, residents of Indian reservations served by FDPIR are in the unique position of being able to choose to participate in either of two major nutrition assistance programs—FDPIR or the Food Stamp Program.

The basic premise for maintaining a program to distribute commodities to low-income persons living on or near Indian reservations was that local food stamp offices were located too far from these areas. Furthermore, the distance to stores that would accept food coupons was thought to be so great that it would impose an unfair cost on food stamp participants who lived on reservations.

For low-income American Indians and other persons living on reservations where FDPIR is available, the choice to participate in FDPIR or the Food Stamp Program is affected by two broad sets of factors. The first set of factors includes differences in eligibility criteria, and the form and perceived value of benefits. The second set of factors concerns the accessibility of the two programs, both in terms of geographic convenience and potential applicants' perceptions of the effort required to apply for and obtain benefits. Both sets of factors are important because one is affected by the policies enacted by the Congress and translated into administrative regulations by the Food and Nutrition Service (FNS), while the other set is affected by the manner in which States and Indian Tribal Organizations (ITOs) manage the program. Expanding our knowledge about each set of factors could improve food assistance policy toward American Indians and the management of FDPIR.

We begin this chapter with a comparison of eligibility criteria and other aspects of policy related to FDPIR and the Food Stamp Program. It is followed by a comparison of the characteristics of American Indians who receive commodities with others who receive food stamps. Then, using data collected in a small exploratory survey of American Indians who receive food stamps, we examine differences in perceptions of the two programs by FDPIR and Food Stamp

Program participants. Finally, after assessing the potential food stamp eligibility of FDPIR households, we compare the costs of providing food assistance to American Indians under FDPIR and the Food Stamp Program.

**A. COMPARISON OF PARTICIPATION REQUIREMENTS IN FDPIR AND THE FOOD STAMP PROGRAM**

There are three primary differences between FDPIR and food stamp eligibility criteria and how benefits are determined:

- the treatment of financial resources, particularly vehicles;
- the use of a gross income eligibility standard in the Food Stamp Program, but not in FDPIR; and
- a fixed FDPIR benefit (the commodity package) determined by household size, versus variable food stamp benefits (the coupon allotment) determined by household size and income.

The eligibility process in the Food Stamp Program includes three basic steps. The first step determines if a household has more than \$2,000 in financial resources (\$3,000 for households with an elderly member), including the portion of the value of nonexcluded vehicles exceeding \$4,500.<sup>1</sup> If a household meets the assets test and does not contain an elderly or disabled member, its gross income is compared to a limit based on 130 percent of the Federal poverty level for households of a given size. If the household's gross income is less than that standard (or the household includes an elderly or disabled member), its net income is determined by applying appropriate shelter, work expense, dependent care, and (if eligible) medical expense deductions, as well as a standard deduction. Households with income below the net income limit are eligible to receive a food stamp allotment based on household size and net income.

Determining eligibility for a commodity package under FDPIR is less complex because fewer eligibility factors are considered. The assets limit for households that do not contain an elderly or disabled

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<sup>1</sup>Assessing the value of vehicles for food stamp eligibility determination is a complex process that accounts for both fair market and equity values. Also, vehicles that are necessary for traveling long distances for employment or to transport a disabled household member are exempt from consideration.

member is \$1,750, compared to \$2,000 in the Food Stamp Program (the same \$3,000 limit applies to households with an elderly member). The value of vehicles is not counted as an asset and no gross income test is applied to household income. Instead, a net income limit, based on the food stamp net income limit and the standard deduction used in the Food Stamp Program, is the final criterion for eligibility.

The form of benefits received under the two programs is, of course, different, but another important difference is that the level of benefit for eligible food stamp households varies according to household size *and* income. In contrast, the size of the FDPIR commodity package received by an eligible household is determined solely by the number of household members, regardless of the household's level of income.

One unique aspect of the food stamp benefit determination process is that one- and two-person households that are eligible (on the basis of gross and net income) to receive an allotment of less than \$10 are provided a minimum benefit of \$10 (in contrast, allotments for households with three or more persons may be set as low as \$2, \$4, or \$6). An important group that this policy affects is the elderly. In 1987, nearly three out of ten food stamp households with an elderly member (29.4 percent) received the \$10 minimum benefit, compared to only 3.7 percent of all other food stamp households.<sup>2</sup>

Another feature that distinguishes the Food Stamp Program from FDPIR is that eligible adults who are not employed, disabled, 60 years of age or older, or responsible for the care of young children are required to register for work. Registration for work includes actively seeking employment and receiving training to assist directly in future employment. However, many food stamp participants who reside in rural areas are exempt from the requirement to participate in employment and training programs because it is difficult to operate cost-effective programs in these areas. Work registration is not required to participate in FDPIR.

#### **B. COMPARISON OF AMERICAN INDIAN PARTICIPANTS IN FDPIR AND THE FOOD STAMP PROGRAM**

Recall from Chapter III that perhaps half of all American Indians in the continental United States receive food stamps or FDPIR com-

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<sup>2</sup>See FNS, Characteristics of Food Stamp Households: Summer 1987 (Alexandria, VA: Office of Analysis and Evaluation, January 1990), p. 84.

modities, with two-thirds participating in the Food Stamp Program and one-third in FDPIR. The differences in policy between FDPIR and the Food Stamp Program are likely to produce some differences in the characteristics of American Indians who participate in these programs. For example, program data indicate that the cost to FNS for commodities provided in an average month to each FDPIR participant in Fiscal Year 1989 was approximately \$25.<sup>3</sup> If elderly American Indians who lived alone were likely to qualify only for the minimum food stamp allotment of \$10, but could obtain commodities worth \$25, they might be inclined to apply for commodities rather than food stamps. The same might be true of households with earned income because higher income results in a smaller food stamp allotment, but does not affect the size of the commodity package an eligible household receives.

This study provides two sources of information about the characteristics of households that participated in FDPIR during September 1989—data compiled from their FDPIR case records and interviews with members of those households. In addition to the survey of FDPIR households, we also analyzed data from the food stamp quality control (QC) data base to obtain information about American Indian households that received food stamps in 1986. The QC data base is derived from a national probability survey of 10,474 food stamp households, and includes a subsample of 288 American Indian households. Both the full sample and the Indian subsample are nationally representative, but because the data base involves a relatively small number of American Indian households and relatively few household characteristics, the findings lack precision and must be interpreted with caution.

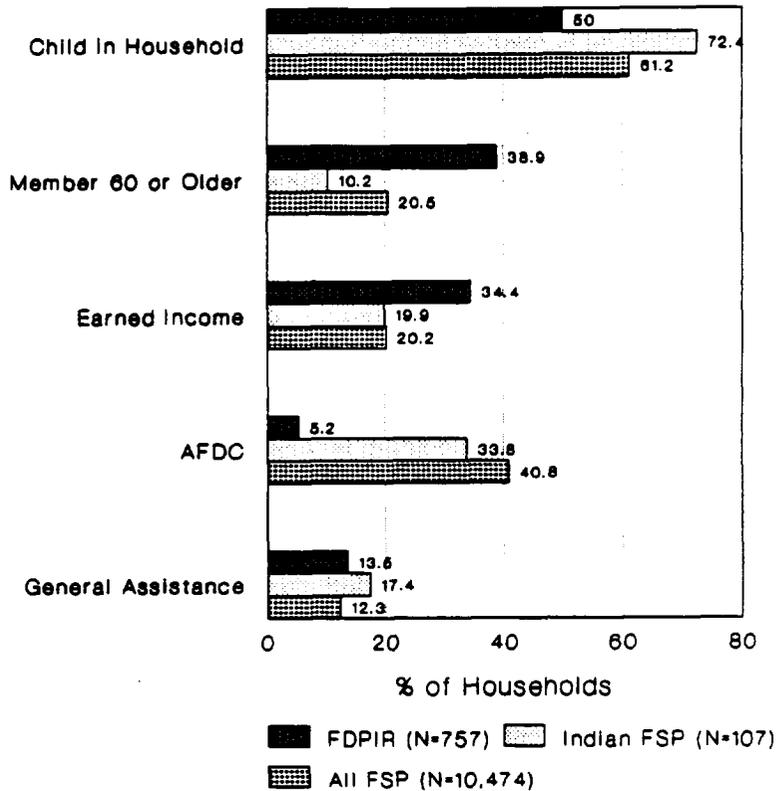
Given the limited information available in QC data, this evaluation included a small-scale survey of approximately 100 American Indians who were participating in the Food Stamp Program in three widely separate parts of the country (specifically, reservations served by three of the sample FDPIR programs located in Arizona, North Dakota, and Wisconsin). While these samples are not generally representative of American Indians who participate in the Food Stamp Program, they offer some preliminary information about perceptions of FDPIR among food stamp households, as well as other

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<sup>3</sup>Retail costs of comparable food items are likely to exceed the costs of commodities to USDA. USDA, FNS, Program Information Division, Data Base Monitoring Branch, Program Information Report (Key Data), November 1989, p. 30.

information about American Indians who chose to participate in the Food Stamp Program rather than FDPIR.

Exhibit IV.1  
 Characteristics of FDPIR and  
 Food Stamp Households



The findings presented in Exhibit IV.1 are based on the 288 food stamp households included in the QC data base and the survey of 757 FDPIR households conducted in this study.<sup>4</sup> They reveal some interesting differences in the characteristics of households that participate in FDPIR and those of American Indians in the Food Stamp Program. First, whereas half of the FDPIR households in our survey included a child, nearly three-fourths (72.4 percent) of American Indian food stamp households in the 1986 QC sample contained

<sup>4</sup>The data reported for the entire food stamp caseload (labeled "All FSP" in the chart) are based on the 1987 QC data, which are the most recently published results from this data base. Specific information about American Indian food stamp households can only be obtained through special analyses of QC data. The latest data that were available for our analysis pertained to 1986. We are not aware of any changes in policy or other social or economic factors that would have caused substantial changes in the characteristics of these households between the two years.

a member who was younger than 18. Only 10.2 percent of the American Indian food stamp households included persons aged 60 or older. In contrast, 38.9 percent of the FDPIR households included an elderly member. Thus, these data suggest that the Food Stamp Program is more likely to serve younger American Indian households with children, whereas older persons constitute a significant segment of the population being served by FDPIR.

The patterns of household income indicated by Exhibit IV.1 are consistent with the age characteristics of each group of households. American Indian food stamp households are much more likely to receive Aid to Families with Dependent Children (AFDC) than FDPIR households, with one-third of the food stamp households having that source of income, while only 5.2 percent of the FDPIR households had it.

Contributing to these differences in participation patterns is the relative ease with which AFDC households may obtain food stamps. Current regulations establish categorical eligibility for either food stamps or FDPIR for public assistance households (that is, those in which all members are part of the AFDC assistance unit or receive Supplemental Security Income [SSI]). In addition, filing an application for food stamps, unlike applying for commodities, does not require traveling to a different office. The same would be true of General Assistance (GA) payments from State welfare agencies, although some GA payments are made by the Bureau of Indian Affairs (BIA). In these cases, the BIA office may be more likely to be located near tribal headquarters than the local food stamp office, thereby making it more convenient to apply for commodities than for food stamps.

The larger proportion of FDPIR households with earned income also is not unexpected. Given that all households eligible for FDPIR receive a full package of commodities, and that earnings tend to reduce the size of the food stamp allotment that eligible households receive, households with an employed member may be more likely to apply for commodities rather than food stamps (note that American Indian food stamp households are just as likely to have earned income as other food stamp households, with approximately one-fifth being employed).

Exhibit IV.2 compares the gross monthly income of FDPIR and food stamp households, and shows that FDPIR household incomes tend to be larger. This is not surprising given differences in eligibility requirements (specifically the lack of a gross-income limit) that permit

Exhibit IV.2

Average Gross Monthly Income of Households Participating  
in FDPIR and the Food Stamp Program

Size of Household	FDPIR Households* (N = 827)	Food Stamp Program**	
		Indian Households (N = 288)	All Households (10,474)
1	\$347	\$175	\$290
2	476	314	371
3	545	385	433
4	670	445	524
5	872	524	633
6	758	462	682
7	813	785	797
8 or more	<u>1,149</u>	<u>774</u>	<u>914</u>
All	\$565	\$395	\$426

\*Case record data of FDPIR survey respondents were collected at the time of their most recent certification, recertification, or interim change, all within 12 months prior to September 1989.

\*\*QC data, collected in the Summer of 1987.

eligible FDPIR households to have a higher level of income. Also, as we discussed in the previous chapter, there is a pronounced tendency for a particularly poor group of American Indians, AFDC families, to participate in the Food Stamp Program rather than FDPIR. We must recall, however, that only 4.3 percent of FDPIR households had income in excess of 130 percent of the poverty level, the gross income limit established for the Food Stamp Program. Therefore, the income of FDPIR households is higher only in a narrow sense.

As Exhibit IV.3 shows, the differences in household size among the FDPIR sample, the full food stamp caseload, and American Indian

Exhibit IV.3

Household Size for Households Participating in  
FDPIR and the Food Stamp Program

Size of Household	FDPIR Households (N = 827)	Food Stamp Program	
		Indian Households (N = 288)	All Households (N = 10,474)
1 or 2	45.6%	33.4%	52.4%
3 - 5	42.8	51.0	40.3
6 or More	<u>11.6</u>	<u>15.6</u>	<u>7.4</u>
Totals	100.0%	100.0%	100.1%
Average	3.2	3.4	2.7

food stamp households are consistent with the findings reported above. Whereas nearly half (45.6 percent) of the households that received commodities contained only one or two persons, only one-third of the American Indian food stamp households were that small. This finding is consistent with the higher rate of FDPIR households with older persons, and the higher rate of AFDC households among American Indian food stamp households reported in Chapter III. For example, elderly persons account for 62 percent of the one-person FDPIR households.

**C. PATTERNS OF PROGRAM PARTICIPATION**

Participants in the focus groups offered a variety of reasons for choosing to participate in FDPIR or the Food Stamp Program, and for periodically switching between them. For example, some persons indicated that it was possible for them to store up certain commodities, such as canned milk. When they had accumulated such a supply, they could more easily switch to the Food Stamp Program in order to obtain fresh meats and vegetables, or to purchase a wider variety of packaged foods. For some, this change in

programs coincided with tribal ceremonies or festivals for which they wanted to prepare special foods.

Exhibit IV.4

History of Program Participation by FDPIR  
and Food Stamp Households

Form of Participation	FDPIR Households (N = 757) (%)	Food Stamp Households (N = 107) (%)
<b><u>Over Past 12 Months</u></b>		
Households that received current benefit each month	51.3	58.9
Households that participated in other program in past 12 months	23.8	47.6
<b><u>At Any Point in the Past</u></b>		
Households that ever applied for benefits from other program	52.8	57.0
Households that applied and received other benefit	83.7	91.8
Households that previously left current program, but returned	42.2	51.4
Households that received benefits from other program while off current program	27.2	46.3

To assess program preferences and the extent of cross-program transfers by American Indians, we asked respondents in the FDPIR and food stamp household surveys about their participation in both programs. As shown in Exhibit IV.4, more than half of both groups of households had received benefits under the program in which they were currently participating for each of the past 12 months.

Among FDPIR households that had not received commodities each month, 23.8 percent received food stamps during the 12 months prior to the survey. In contrast, nearly half of the food stamp households had received commodities at some point during the same 12-month period.<sup>5</sup> Although there are several factors which could influence these rates, these findings are consistent with the more stringent eligibility criteria used in the Food Stamp Program.

These findings suggest that food stamp households are more likely to apply for commodities when they leave the Food Stamp Program than FDPIR households are to apply for food stamps when they leave FDPIR. It may be the case that the households most likely to leave FDPIR are those whose earnings exceed net income limits. As a result, they would not be eligible for food stamps because of the gross income means test in that program. In contrast, food stamp households still might be eligible for FDPIR, and therefore, might be more successful in obtaining commodities than former FDPIR households are in obtaining food stamps.

In looking beyond the last 12 months, there appears to be a fairly high level of cross-program participation. Exhibit IV.4 shows that more than half of both groups had applied for benefits under the other program at some time, and that 83.7 percent of FDPIR appli-

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cants for food stamps and 91.8 percent of food stamp applicants for FDPIR had been found eligible. In both cases, however, slightly fewer FDPIR households applied for food stamps, and that a smaller proportion was determined to be eligible for assistance under the Food Stamp Program. Again, given the higher income FDPIR households tend to have, this result might have been expected.

The current spell of participation (that is, the period of months over which benefits had been received continuously) was at least the second for a substantial segment of both the FDPIR and food stamp households in survey samples. Slightly more than half of the food stamp households and 42.2 percent of the FDPIR households had been on the program at some point in the past, left, and returned. While they had been off the program in which they were currently participating, 27.2 percent of the FDPIR households had received food stamps, and nearly half of the food stamp households had received commodities.

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<sup>5</sup>This comparison is exploratory. Given the small size of the food stamp sample (N = 107) and its limited geographic coverage (reservations in three States), it is inappropriate to test the statistical significance of these differences. Therefore, findings presented here must be viewed as tentative and not conclusive.

#### **D. PERCEPTIONS OF FDPIR AND THE FOOD STAMP PROGRAM AMONG CURRENT PROGRAM PARTICIPANTS**

To explore American Indians' perceptions of FDPIR and the Food Stamp Program, we asked survey respondents why they had chosen to apply for benefits under one program or the other. Among the 107 food stamp participants included in the survey of that group, more than half (57.5 percent) indicated that they were able to obtain a better variety of foods by using food stamps. Similarly, another 24.5 percent said that the ability to buy what they wanted was the determining factor in their choice to apply for food stamps. Among the few remaining households, no other factor was mentioned by as many as five percent of the respondents.

Approximately one-third of the 757 FDPIR participants who were surveyed felt that they could receive more food from the commodity program than through the Food Stamp Program. Another 3.2 percent felt that the commodity package would go further in meeting their households' food needs than a food stamp allotment, and 7.2 percent felt that they would receive better foods from FDPIR than they could obtain through the Food Stamp Program.

Nearly one in five current FDPIR participants perceived food stamp application procedures and participation requirements to be a deterrent to their participation in the Food Stamp Program. This finding was consistent with a theme detected in the focus groups we conducted, and with observations made by FDPIR program staff we interviewed. Only 6.5 percent of the survey sample indicated that travel distances or transportation problems would make it difficult for them to apply for food stamps or purchase food with food stamps.

#### **E. PROGRAM ACCESSIBILITY**

There are two dimensions to the issue of program accessibility that are relevant to the comparison of FDPIR and the Food Stamp Program. First, as we noted above, a substantial segment of FDPIR participants felt that food stamp application procedures and participation requirements were too demanding. In addition, several participants in focus groups and informal discussions with other participants indicated that they felt more comfortable receiving benefits through a program targeted at and operated by American Indians. In a few areas, disputes over tribal fishing rights and other treaty agreements had produced a general level of tension between

the American Indian community and other local residents. In most instances, however, participants appeared to be expressing a feeling that it was simply more comfortable for them to participate in FDPIR. Nevertheless, one percent of the survey respondents specifically stated that FDPIR staff had been "nicer" to them than local food stamp staff, and that this attitude accounted for their participation in FDPIR rather than the Food Stamp Program.

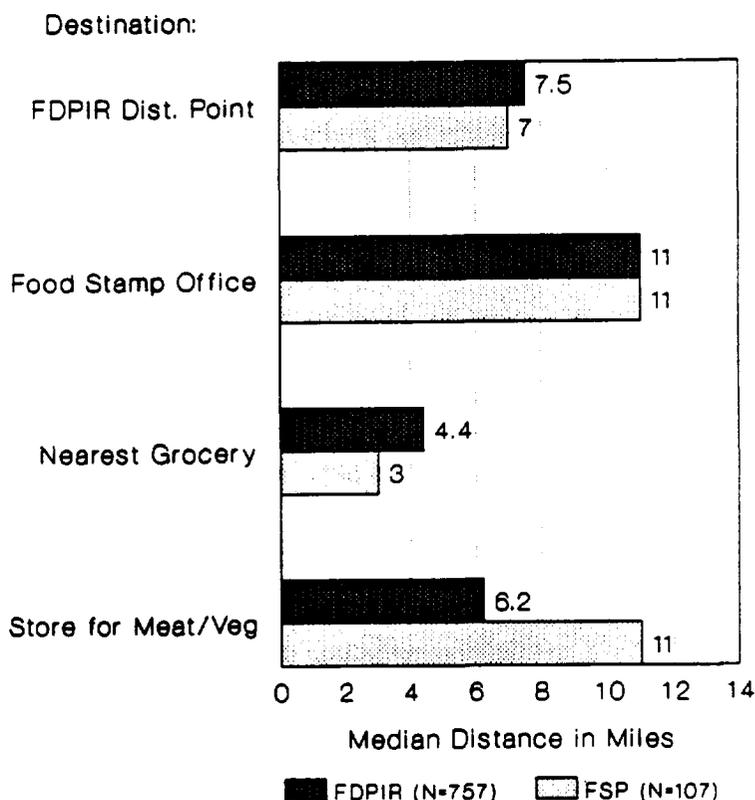
The other, more obvious dimension of accessibility concerns geographic accessibility. This factor seems to have provided the rationale for maintaining the Needy Family Program, but no precise information has been available concerning (1) the distance potential participants must travel to reach a FDPIR or food stamp office, or (2) the distance to grocery stores where food stamps may be redeemed. The surveys of FDPIR participants and American Indians who receive food stamps provide information about travel distances to these places, and enable us to compare, for example, the distance FDPIR participants currently travel to pick up commodities to the distance they would have to travel in order to buy food with food stamps.

Exhibit IV.5 shows the median distance in miles to the following places for both FDPIR and food stamp respondents:

- the distance to the commodity distribution point for FDPIR participants (in most cases, the same place applications are submitted), or to the place where food stamp participants would go to apply for FDPIR benefits;
- the distance to the food stamp office where food stamp participants applied for benefits, or where FDPIR participants would apply for food stamps;
- the distance to the *nearest* food store; and
- the distance to the food store where the respondent's household usually buys fresh meat and vegetables.

The data in Exhibit IV.5 indicate, first, that commodity distribution points are somewhat more convenient than food stamp offices for the average FDPIR participant. On average, they would have to drive about four miles farther to apply for food stamps (a median distance of 11 miles versus 7.5 miles). In fact, the distance to the food stamp office is essentially the same for 27.9 percent of the

Exhibit IV.5  
Travel Distances Each Way for FDPIR  
and Food Stamp Households



**FDPIR households, more distant for 37.3 percent, and closer for 34.8 percent.**

**For most FDPIR and food stamp participants, the distances that must be traveled to buy food are not great, and on average the distance is five miles or less to the nearest food store. Given the relative proximity of a food store, using food stamps would not appear to be especially difficult. Also, for FDPIR survey respondents, the average distance to the store where these households usually buy fresh meat and vegetables was about six miles from their homes, only a mile or so farther than the nearest food store. While definitive conclusions cannot be drawn on the basis of so few cases, it is interesting to note that the distance to the store where food stamp households purchased meats and vegetables was greater, averaging 11 miles or so.**

**In reviewing the data for food stamp participants presented in Exhibit IV.5, it is important to keep in mind that the distances reported for this group are based on small samples taken from three**

widely separated sites. As such, these findings are probably not representative of the situation for most American Indians who participate in the Food Stamp Program. Given this important qualification, the findings imply that travel distances are not a key factor affecting American Indians' choices of food assistance programs.

#### **F. PATTERNS OF FOOD SUPPLEMENTATION AMONG FDPIR AND FOOD STAMP PARTICIPANTS**

We described in the previous chapter how participants in FDPIR supplement their commodity food packages with purchased food and food produced at home in order to meet their households' food needs. The same is true of participants in the food stamp program. In this section, we compare (1) food expenditures for FDPIR and food stamp households; (2) home production of food; and (3) participation in other nutrition assistance programs.

#### **Food Expenditures**

Exhibit IV.6 shows that FDPIR households in the survey sample generally expended more cash for food than did households in the sample of American Indian food stamp households. One reason for the difference in spending for food reported by the two groups may be that a large proportion of the food stamp households received FDPIR, and that the gross monthly income of FDPIR households was generally higher, due partly to the higher rate of employment among this group. However, a more important reason for the difference in cash outlay appears to be the value of benefits under the two programs.

On average, the food stamp allotment provided the resources for 73.3 percent of the food purchases for food stamp households. In contrast, commodities represented only 38.5 percent of the cash value of food brought into the homes of FDPIR households in the survey sample. However, given that the value we attach to the commodities is the average cost to FNS for the purchase of commodities, this value reflects a wholesale cost rather than retail value. Thus, even based on this conservative estimate of the value of the FDPIR food package, FDPIR households seem to have had a larger food budget on a per capita basis than the small sample of food stamp households we interviewed.

We must emphasize that these findings are tentative due to the limitations of the sample of food stamp households, which is both relatively small in size and limited to reservations in three States. As such, the reported findings cannot provide conclusive compari-

Exhibit IV.6

Mean Per Capita Food Purchases and Benefit Levels Per Month for  
FDPIR and Food Stamp Sample Households

Source of Food/ Type of Benefit	FDPIR Households (N = 757)	Food Stamp Households (N = 107)
<b><u>Food Purchases*</u></b>		
Grocery Stores	\$33	\$12
Restaurants	6	3
Take Home	1	1
<b><u>Food Benefits</u></b>		
Commodity Package	<u>25</u>	
Food Stamp Allotment		<u>44</u>
<b>Total</b>	<b>\$65</b>	<b>\$60</b>

\*Food purchases, excluding program benefits.

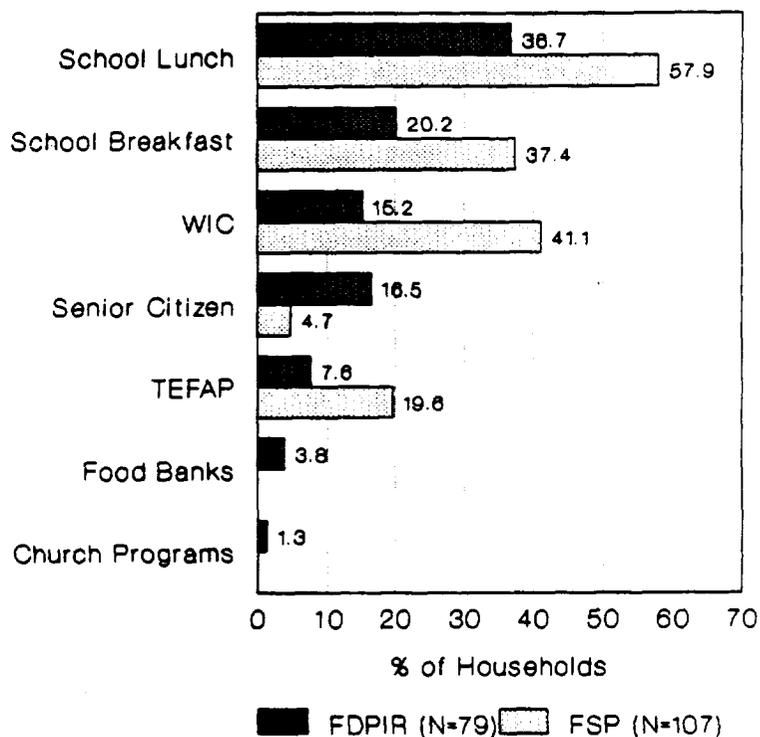
sons between these two populations, but can point to areas that may merit further research. For example, the difference between the two groups is only slight in terms of the combined cash value of grocery store purchases and program benefit (\$58 for FDPIR households and \$56 for food stamp households). However, it seems to be greater with regard to food purchased at restaurants. To determine if a difference actually exists in patterns of food purchases, and whether such a difference had any impact on dietary sufficiency, it would be necessary to conduct a nutrient-intake survey involving both populations.

## **Participation in Other Food Assistance Programs**

One way in which low-income households can supplement their food supply is through participation in other food assistance programs other than FDPIR or the Food Stamp Program. Some of these programs are sponsored by the Federal government, while others are locally initiated and operated. To compare the participation of FDPIR and food stamp households in these programs, it is necessary to restrict the comparison to households residing in the same communities. This restriction provides a means to control for factors which could influence program participation behavior, such as socioeconomic conditions and the availability of local food assistance programs. Thus, the following analysis pertains only to households on the three reservations where both food stamp and FDPIR household surveys were done.

The different levels of participation in these assistance programs shown in Exhibit IV.7 are consistent with the differences in characteristics of FDPIR and food stamp households described earlier in this chapter. Since American Indian food stamp households tend to be larger and more likely to contain children, it is not surprising that the majority of households have one or more members who received free or reduced-price breakfasts and lunches at school. Similarly, more than four out of ten received WIC benefits. In contrast, FDPIR households were more likely than food stamp households to receive assistance through a food program for the elderly. Again, these differences in WIC and elderly food program participation may be due largely to differences in household composition between FDPIR and the Food Stamp Program (see Exhibit IV.1). Interestingly, a larger proportion of the food stamp households received Temporary Emergency Food Assistance Program (TEFAP) benefits, perhaps suggesting that referral mechanisms between the local food stamp office and the distributors of TEFAP commodities were more direct in the three food stamp sites than those for FDPIR. Also, it may be that the TEFAP commodities had more appeal for food stamp households since FDPIR households often receive the same commodities under FDPIR that are distributed through TEFAP.

Exhibit IV.7  
 FDPIR and Food Stamp Household Participation in Other Food Assistance Programs

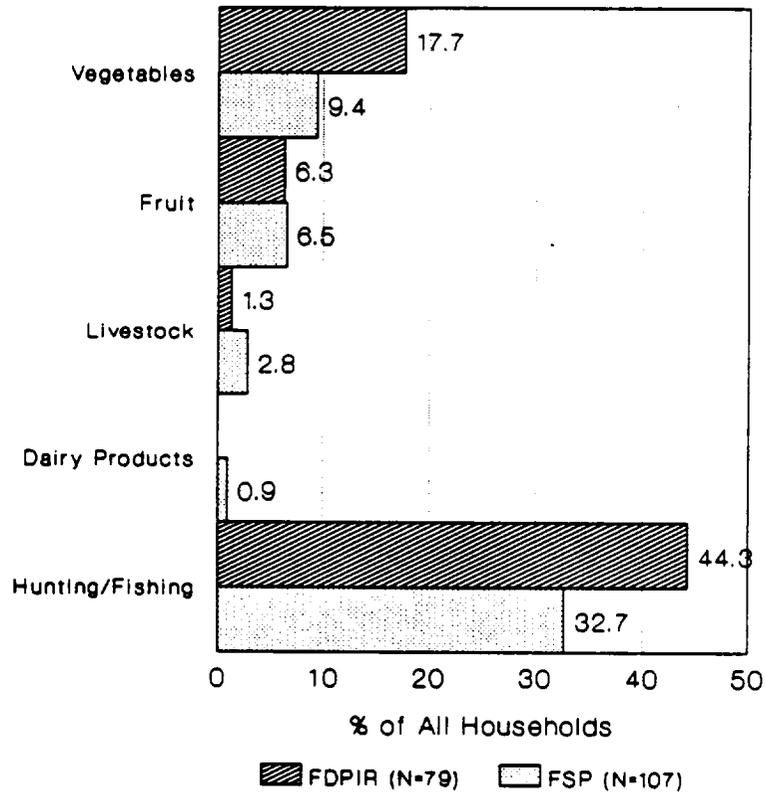


Unweighted data from 3 sites.

**Home-Produced Food**

Based on the surveys of FDPIR and food stamp households, we can also compare the two groups in terms of the production of food at home. To control for differences in climate and other factors that would encourage or discourage the production of food at home, we compared the two sets of households in the three sites selected for the food stamp household surveys (again, sites located in Arizona, Montana, and Wisconsin). It also should be noted that there were no statistically significant differences among FDPIR and Food Stamp households in the usage rates of grocery stores, restaurants, or take-out and delivered foods. The only difference in home-produced foods indicated by Exhibit IV.8 is in vegetable gardening and hunting and fishing, both activities more likely to be pursued by FDPIR households than those receiving food stamps.

Exhibit IV.8  
 Supplementary Sources of Food for FDPIR  
 and Food Stamp Households



Unweighted data from 3 sites.

The pattern of food purchases and home production of food for FDPIR households in these three sites is not very different from that of the entire sample (see the discussion in Chapter III). This fact tends to reinforce the validity of the comparison, but again, we must stress the limitations of the food stamp sample in drawing conclusions.

## **G. ALTERNATIVE COSTS OF PROVIDING FOOD ASSISTANCE TO FDPIR PARTICIPANTS**

The data we have presented concerning travel distances for FDPIR participants indicate that generally only minor differences exist in the distance to the commodity distribution point versus the local food stamp office. In light of this new information, it may be appropriate to examine the cost of providing food assistance to American Indians through FDPIR relative to the cost of serving them under the Food Stamp Program. This comparison also will provide some indication of the relative cost-effectiveness of FDPIR compared to the Food Stamp Program in serving American Indians.

We noted in Chapter III that approximately 4.3 percent of households in the FDPIR survey had gross incomes in excess of 130 percent of the 1989 Federal poverty level. As a result, we estimate that 1,911 of the 44,442 households (i.e., 4.3 percent) that received commodities in September 1989 would be ineligible under the gross income limit used in the Food Stamp Program.

We also obtained information through the survey of FDPIR households pertaining to other food stamp eligibility criteria, such as shelter costs, dependent care costs, medical expenses for households with an elderly or disabled member, vehicles owned by the households, and ownership of Keogh retirement accounts.<sup>6</sup> After examining each household's gross income relative to the poverty level, we found only one household in the sample that had assets in excess of the food stamp limits (recall that for households that do not include an elderly or disabled member, the resource limit for FDPIR is \$1,750, not \$2,000 as in the Food Stamp Program). However, it was necessary to consider the value of vehicles owned by households who met the gross income limit. Ignoring possible employment-related exemptions that were not explicitly addressed in the survey, we found that a relatively small proportion of FDPIR households (less than 10 percent) did, in fact, own vehicles with an estimated market value in excess of \$4,500.

After considering vehicles in the computation of resources and applying the appropriate assets test (\$2,000 or \$3,000), we determined each household's net income by applying the appropriate special and standard deductions to gross income. The results of the simulation indicated that as many as 3,110 additional FDPIR house-

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<sup>6</sup>A more detailed description of the simulation of food stamp eligibility of FDPIR households is provided in Volume 2.

holds would be ineligible for a food stamp allotment. Thus, as Exhibit IV.9 shows, we estimate that 39,421 of the 44,442 households that received commodities in September 1989 would have been eligible for food stamps (88.7 percent).

Exhibit IV.9

Estimated Food Stamp Allotments for Food Stamp-Eligible FDPIR Households

Size of Household	Mean Allotment for Food Stamp-Eligible FDPIR Households (\$)	Number of Eligible Households	Total Cost of Allotments for Food Stamp-Eligible Households (\$)	Mean Allotment for All FSP Households in 1987 (\$)
1	33	9,878	325,974	46
2	71	8,267	586,957	95
3	130	6,411	833,430	144
4	177	6,255	1,107,135	177
5	189	4,016	759,024	198
6	267	2,665	711,555	247
7	265	926	245,390	246
8 or more	339	<u>1,003</u>	<u>340,017</u>	328
Total		39,421	\$4,909,482	

\*FNS, Characteristics of Food Stamp Households: Summer 1987. January 1990, p. 63.

To estimate the cost of providing food stamps to this group, we began by calculating the allotment for each eligible household. The results of that estimation process are summarized by the mean allotments for households of different sizes, shown in the second column. For comparison, we also present in the last column of Exhibit IV.9 the mean allotment by household size for the *entire* food stamp caseload based on the 1987 QC data. In general, the higher gross income of FDPIR households tends to produce smaller average allotments, except among the larger households where the reverse is true. However, because FDPIR households tend to be smaller, only about one-fourth (26.4 percent) of the total potential allotment cost would be attributable to the small household group.

By multiplying the estimated number of eligible households of each size by the estimated average allotment for each size household, we derived the total cost of allotments for food stamp-eligible FDPIR households (see column four). The sum of these estimates is \$4,909,482—the total cost providing allotments to all food stamp-eligible FDPIR households in the sample for September 1989.

These data provide the basis for a comparison of the costs of providing food assistance to American Indians through FDPIR and the Food Stamp Program. Using FNS program data for FY1989 for both programs, we first determined the costs of both benefits and administration under each program, and summarized them in Exhibit IV.10.<sup>7</sup> FDPIR program data indicate an average monthly cost of \$73.94 per household for commodities and \$30.18 for program administration, for a total cost of \$104.12 per household. For September 1989, therefore, the actual total FDPIR costs incurred by local programs and FNS were \$4,627,301.

As shown in the fourth column of Exhibit IV.10, the average food stamp allotment for all households that received food stamps in September 1989 was \$133.51, while general program administration, the employment and training program, and other administrative costs added \$13.94 per household, for a total cost of \$147.45 per household. Thus, the provision of allotments to more than 7.3 million households cost nearly \$1.08 billion that month. However, based on the size of allotments estimated in our simulation of food stamp eligibility and summarized in Exhibit IV.9, we would expect the cost of food stamp allotments to food stamp-eligible FDPIR households to be less than the average allotment for the food stamp caseload as it existed in September 1989. Therefore, Exhibit IV.10 also includes in column 3 the average allotment (\$124.54) we estimated for these households.

Assuming that administrative costs would be the same for FDPIR households who might participate in the Food Stamp Program, the average monthly cost of providing food stamps to food stamp-eligible FDPIR households would be approximately \$138 per household, or about \$9 less than the average cost per household for households that received food stamps in September 1989.

As the totals in columns 2 and 3 of Exhibit IV.10 indicate, it was less expensive to provide commodities to all of the FDPIR house-

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<sup>7</sup>USDA, FNS, Program Information Division, Data Base Monitoring Branch, Program Information Report (Key Data), November 1989, Tables 2 and 26.

Exhibit IV.10

Comparative Costs of Providing Commodities and Food Stamps to  
FDPIR Households Potentially Eligible for Food Stamps

Cost Components	Commodities for FDPIR Households	Food Stamps for FSP-Eligible FDPIR Households	Food Stamps for FSP Households
Benefit	\$73.94	\$124.54	\$133.51
Administration	30.18	12.07	12.07
Employment and Training	NA	1.19	1.19
Other	<u>NA</u>	<u>0.68</u>	<u>0.68</u>
Total Cost Per Household	\$104.12	\$138.48	\$147.45
Number of Eligible Households (9/89)	44,442	39,421	7,323,433
Total Cost	\$4,627,301	\$5,459,020	\$1,079,840,196

holds that received commodities in September 1989 than it would have been to serve 5,000 fewer households through the Food Stamp Program. The total cost of food stamp allotments (\$4,909,482 from Exhibit IV.9) and administrative costs to serve the food stamp-eligible FDPIR households would have been, as shown in Exhibit IV.10, \$5,459,020. This compares to the actual cost of \$4,627,301 to provide commodities that month. Given the general level of satisfaction that seems to exist among program participants, and some of the advantages they perceive to participating in FDPIR rather than the Food Stamp Program, it appears to represent a less costly alternative.

## H. CONCLUSIONS

A comparison of American Indian households served by FDPIR and the Food Stamp Program indicates that households with an elderly

member and households with employed members constitute much larger segments of the FDPIR caseload. In contrast, due largely to joint application procedures, categorical eligibility for food stamps, and the co-location of administrative offices, the majority of American Indian families that receive AFDC participate in the Food Stamp Program rather than FDPIR.

Based on a small exploratory survey of American Indian households living on three reservations who participated in the Food Stamp Program in September 1989, a larger proportion of this group tended to have received benefits continuously for the previous 12 months, compared to FDPIR households interviewed for this study. This is consistent with the nationally representative findings discussed in this chapter, which indicate that AFDC households would tend to have longer spells of participation due to factors related to their need for assistance (specifically, deprivation of parental support), whereas households with earned income would experience

shorter (though perhaps repeated) spells of participation.

Interviews with FDPIR and food stamp households in this study indicated that nearly half of them had participated in both programs. However, American Indian households that had left the Food Stamp Program were more likely to apply for and receive commodities under FDPIR than FDPIR participants were to apply for and receive food stamps. This situation may be due to the lack of a gross income eligibility standard in FDPIR, as well as other more lenient eligibility standards, such as the treatment of household resources, particularly vehicles.

A simulation of food stamp eligibility for FDPIR households included in this study indicates that about 11 percent would not be eligible because of application of the gross income limitation and other factors, such as the treatment of vehicles as financial assets. In addition, since FDPIR households tend to be smaller and more likely to have earnings, they would tend to receive smaller food

some American Indians, especially the elderly. Among other households, particularly those receiving AFDC, it may be more convenient for them to receive food stamps because of the co-location of AFDC and food stamp offices and single-application requirements. Also, the use of food stamps affords more flexibility in obtaining foods not available from the FDPIR commodity package. However, for other households this advantage may be offset by the perceived difficulty of applying for, and using food stamps, as well as any stigma which may be associated with food stamp participation. Thus, together FDPIR and the Food Stamp Program are probably more effective in meeting the food assistance needs of American Indians than either program would be individually.