

September 1989

# FOOD ASSISTANCE PROGRAMS

## Nutritional Adequacy of Primary Food Programs on Four Indian Reservations



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**Resources, Community, and  
Economic Development Division**

B-236011

September 29, 1989

Congressional Requesters

In your August 3, 1988, letter, you expressed concerns regarding the effectiveness of public and private programs in alleviating hunger and promoting the nutritional welfare of residents on Indian reservations. You requested that we determine the sufficiency of food assistance programs in meeting the nutritional needs of Indians living on four reservations: Fort Berthold in North Dakota; Pine Ridge in South Dakota; White Earth in Minnesota; and Navajo in Arizona, New Mexico, and Utah. In this regard, you asked us to respond to three primary 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 the Food Distribution Program on Indian Reservations 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?

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**Results in Brief**

We found the following information:

- A variety of federal food assistance programs serve the four Indian reservations. The two largest are the U.S. Department of Agriculture's (USDA) Food Stamp Program and its Food Distribution Program on Indian Reservations (FDPIR). Three of the four reservations also receive some type of nonfederal food assistance through national food assistance organizations, local food banks, churches, and nonprofit social service agencies.
- The Food Stamp Program and FDPIR are designed to provide recipients with benefits consistent with national dietary guidelines. However, because many factors affect the nutritional value of the food individuals consume, such as the quantity of food ingested, food preparation methods, and the variable nutritional needs of individuals, we were unable to determine the nutritional adequacy of program benefits for specific individuals.
- Four major diet-related health conditions exist on the four reservations: obesity, diabetes, heart disease, and hypertension. Although proper

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nutrition may not cure these conditions, it can reduce their complications or help prevent their occurrence. The Food Stamp Program and FDPIR are not designed to specifically address the special dietary needs of Indian recipients; however, ensuring that program recipients receive and apply adequate nutrition education can help accommodate these needs. Other federal programs are available to Indians on reservations that address the dietary needs of special groups, such as USDA's Special Supplemental Food Program for Women, Infants and Children (WIC).

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## Background

Reservations are often located in remote and harsh areas of the country, with lands not suitable for farming. As a result, many tribes cannot provide all of their own food. Likewise, the tribes on the four reservations we visited have come to rely upon federal food assistance programs to fulfill their nutritional needs. High unemployment rates and low income levels are further reasons why federal food assistance continues to be needed on the four reservations. From 50 to 79 percent of the potential working population is unemployed, and household incomes range from \$9,029 to \$11,045 on the four reservations.

In considering the nutritional needs of Indians living on reservations, it should be recognized that no two Indian tribes in this country are exactly alike. What is good for one tribe of people may not be good for another, and a program that solves the problems of one tribe may not solve the problems of another. This is due to the tribal differences in early culture, location, resources (or lack thereof), religion, education, or tradition.

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## Food Assistance Programs

Several federal food programs provide nutritious food to eligible Indians—the Food Stamp Program, WIC, the Commodity Supplemental Food Program (CSFP), child and elderly nutrition programs, and programs especially designed to include Indians living on or near reservations, such as FDPIR. USDA's Food and Nutrition Service (FNS) is the primary federal agency providing food assistance to Indians.

Several federal food assistance programs serve the four Indian reservations we visited. The two largest are the Food Stamp Program and FDPIR. The Food Stamp Act of 1977 (P.L. 95-113, Sept. 29, 1977), as amended, is the authorizing legislation for both programs. The Food Stamp Program provides monthly food assistance to households that meet the eligibility criteria; recipients receive coupons that they redeem for groceries. As an alternative to food stamps, FDPIR provides commodity

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food to eligible low-income Indian and non-Indian households located on, and Indian households located near, reservations.

While the Food Stamp Program and FDIPIR eligibility criteria are similar, some eligibility differences can create participation obstacles for some households. For example, a household may be eligible for FDIPIR benefits but ineligible for food stamps. The value of an owned vehicle, which is not counted in the FDIPIR eligibility determination, by itself or when added to other household resources may push the household's countable resources beyond food stamp eligibility limits. Other factors, such as personal pride and a strong self-sufficiency ethic, may also account for participation rate differences among eligible Indian households. In calendar year 1988, the combined participation in the FDIPIR and the Food Stamp Program ranged from 38 to 90 percent of the population living on or adjacent to the four reservations we reviewed.

Indians can also receive food assistance from nonfederal sources, although information regarding the adequacy of the amount of food provided by these sources was not available. Three of the four reservations we reviewed were receiving some type of nonfederal assistance through national food assistance organizations, local food banks, churches, and nonprofit social service agencies. These organizations provide emergency food aid and supplemental food for individual Indians and for community feeding sites, such as senior citizen centers, shelters, and missions. The amount of food provided by nonfederal organizations to the Navajo Reservation has increased; however, according to a 1989 report on hunger in Arizona, many nonfederal food providers reported being short of funds and being unable to meet all of the food and other needs on the reservation.<sup>1</sup> In total, nonfederal food assistance efforts on the three reservations are small compared with the federal food assistance programs.

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## Nutritional Adequacy of Food Stamp Program

The maximum Food Stamp Program benefit is designed to provide households, with no countable income, an adequate quantity of food and nutrients for an entire month, according to USDA. However, most food stamp households have some countable income that can be contributed toward food purchases. Thus, food stamps are, in practice for most households, a supplemental benefit, according to USDA officials. The nutritional benefits of food stamps are based on USDA's 1983 Thrifty

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<sup>1</sup> *Hunger in Arizona*, The Arizona State Advisory Council on Hunger and the Department of Economic Security (Jan. 1989).

Food Plan (TFP) that incorporates information on food consumption patterns, food prices (updated for inflation), nutrient composition of foods, and human nutritional requirements. The plan is consistent with the 1980 dietary standards established by the National Academy of Sciences. However, the TFP is only an analytical guide that food stamp recipients may or may not follow. Food stamp recipients can purchase any food items, regardless of nutritional value or cost. Because many variables affect what individuals consume, we were not able to determine the nutritional adequacy of the program benefits for individuals.

## Nutritional Adequacy of FDPIR

As a supplemental food source, the food package put together under FDPIR is not intended to provide a 30-day supply of food. As is true for most persons receiving food stamps, FDPIR recipients are expected to purchase a portion of their monthly food supply. According to USDA, the nutritional content of the monthly food packages meets or exceeds the recommended dietary allowance for food energy, protein, most vitamins and minerals. Opinions vary on the adequacy of the size of the food packages. Specific data showing the amount of time that a food package will sustain a family were not available from either program or tribal officials on the four reservations. Some tribal officials said that FDPIR food packages are adequate. Other tribal officials said that some recipients run out of food before the end of the month. They identified two surveys, one completed on the Fort Berthold Reservation in 1985 and the other on the Pine Ridge Reservation in 1989, that indicated about 15 and 41 percent of the reservation households sampled by the surveys, respectively, had experienced food shortages.

Participants are offered several choices of food items among the four basic food groups. Although about 60 different food items are authorized for FDPIR distribution, not all of the items are consistently available. Various factors, such as adverse market conditions, tribal food preferences, and storage space limitations at the state and reservation program levels, may limit the variety of foods available at specific reservations for specific months. The occasional absence of some FDPIR food items may also reduce the overall nutritional value of the food packages. Although USDA improved the nutritional content of the FDPIR food package in 1986, tribal and U.S. Department of Health and Human Services' (HHS) Indian Health Service (IHS) officials believe that the fat and sodium content of many of the available food items should be reduced further.

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## Special Nutritional Needs of Indians

IHS and tribal officials cited diabetes, heart disease, obesity, and hypertension as major diet-related health conditions on the four reservations. Although proper nutrition may not cure these conditions, it may reduce their complications or help prevent their occurrence. While the Food Stamp Program and FDIPIR are not designed to specifically address the special dietary needs of Indian recipients, more can be done to accommodate these needs provided recipients receive and apply adequate nutrition education. For example, people with hypertension or other salt-sensitive health conditions may be able to use commodities that contain salt by rinsing the item to eliminate the external salt residue from packing juices, thereby reducing the overall salt content of the item.

In addition, other federal programs are designed to meet the nutritional needs of some special populations. For example, nutritional needs of infants on the four reservations are addressed by WIC. Although we could not determine if WIC benefits were being provided to all eligible recipients, we found that as of December 1988 there was no waiting list for participation in the WIC program at any of the four reservations. Some programs administered by HHS' Administration on Aging, for another example, make special food preparation and delivery provisions for persons unable to obtain benefits on their own.

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## Nutrition Education

One way to attain proper nutrition is by improving food purchasing and preparation practices and eating habits, which can be encouraged through nutrition education. Providing nutrition literature and employing nutritionists in conjunction with the food assistance programs can help to educate program recipients by demonstrating how to purchase and prepare more nutritious foods, how to make their food supplies last longer, and how to address special health needs.

The amount and types of nutrition education provided as part of the Food Stamp Program and FDIPIR at the four Indian reservations varied. Nutrition education activities ranged from cooking demonstrations, lectures, and one-on-one nutrition counseling to posting brochures and providing other written materials to program participants. IHS and community health representatives also provide some nutrition education services on the four reservations. According to IHS and tribal nutritionists, nutrition education efforts on the four reservations should be expanded and tailored to the specific needs of reservation Indians.

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## Observations

Food assistance programs can improve diets on Indian reservations by making available more nutritious foods and nutrition education. Although such programs, primarily the federal Food Stamp Program and FDIIR, along with nonfederal food assistance, have contributed to the improved diet of low-income Indian households on the four reservations we reviewed, there are indications that some hunger still exists at Fort Berthold and Pine Ridge. However, the extent of this hunger is not easily determined. A greater concern on each of the four reservations was the prevalence of diet-related diseases and the impact of federal food assistance programs on those diseases.

Many factors affect the quality of life of Indians residing on reservations, including high unemployment and transportation constraints. Providing an adequate food supply and proper education that addresses the nutritional needs of the general reservation population as well as those with diet-related diseases should improve that quality of life. Individual Indians also need to carry out the nutrition education by choosing healthier foods and preparing them in a nutritious manner.

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## Agency Comments

The Departments of Agriculture and Health and Human Services, as well as the tribes on the four reservations included in our review, were given the opportunity to formally comment on a draft of this report. Comments were received from the Departments of Agriculture and Health and Human Services. Both agencies generally agreed with the information presented and provided technical corrections and clarifying information, which have been incorporated in the report as appropriate. The Department of Agriculture noted that its Food and Nutrition Service has contracted with a research firm to conduct a comprehensive evaluation of the Food Distribution Program on Indian Reservations. It anticipates that the evaluation will be completed by the summer of 1990 and that the evaluation's findings will be used to make the program more responsive to the nutritional needs of the low-income households on Indian reservations and to improve the efficiency and effectiveness of program operations. Comments received from the two departments are provided in appendixes IX and X.

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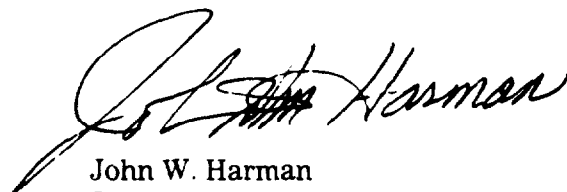
We obtained information by reviewing food assistance activities at the four reservations and interviewing federal, state, county, tribal, and community service officials responsible for administering the food programs. The information in this report on the four reservations should not necessarily be considered as representative of all Indian tribes.



Details of our scope and methodology, including questions about the reliability of certain agency-supplied data, are contained in appendix I. Appendix II contains information on the food assistance programs on the four reservations; appendix III covers the nutritional adequacy of benefits provided by the primary food assistance programs; appendix IV contains observations about the nutritional needs on the four reservations; appendix V lists the tribal and agency sites we visited; appendix VI provides an example of a food stamp benefit calculation; appendix VII lists the available FDIIR food commodities; and appendix VIII provides profiles of the four reservations.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 10 days from the date of this letter. At that time, we will send copies to the Secretary of Agriculture; the Secretary of Health and Human Services; the Secretary of the Interior; the Director, Office of Management and Budget; tribal officials; and other interested parties.

If you have any questions on the material in this report, please call me on (202) 275-5138. Major contributors are listed in appendix XI.

A handwritten signature in black ink, appearing to read "John W. Harman". The signature is fluid and cursive, with a large initial "J" and "H".

John W. Harman  
Director, Food and Agriculture  
Issues

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The Honorable Quentin Burdick, Chairman  
Committee on Environment and Public Works  
United States Senate

The Honorable Daniel Inouye, Chairman  
Select Committee on Indian Affairs  
United States Senate

The Honorable Patrick Leahy, Chairman  
Committee on Agriculture, Nutrition and Forestry  
United States Senate

The Honorable Jeff Bingaman  
The Honorable Kent Conrad  
The Honorable Tom Daschle  
The Honorable Dennis DeConcini  
The Honorable Daniel Evans  
The Honorable Tom Harkin  
The Honorable John McCain  
United States Senate



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**Abbreviations**

|       |  |
|-------|--|
| BLA   | Bureau of Indian Affairs   |
| CSFP  | Commodity Supplemental Food Program                                |
| FDPIR | Food Distribution Program on Indian Reservations                   |
| FNS   | Food and Nutrition Service   |
| GAO   | U.S. General Accounting Office                                     |
| HHS   | U.S. Department of Health and Human Services                       |
| IHS   | Indian Health Service  |
| RDA   | Recommended Dietary Allowance                                      |
| TEFAP | Temporary Emergency Food Assistance Program                        |
| TFP   | Thrifty Food Plan  |
| USDA  | U.S. Department of Agriculture                                     |
| WIC   | Special Supplemental Food Program for Women, Infants, and Children |



# Objectives, Scope, and Methodology

An August 3, 1988, letter from the Chairmen of the Senate Committees on Agriculture, Nutrition and Forestry; Environment and Public Works; and the Select Committee on Indian Affairs; six Senators—Jeff Bingaman, Kent Conrad, Tom Daschle, Dennis DeConcini, Tom Harkin, John McCain—and former Senator Daniel Evans expressed their concerns regarding the effectiveness of food assistance programs on Indian reservations. In subsequent meetings with the requesters' offices, we were specifically requested to determine the sufficiency of food assistance programs in meeting the nutritional needs of Indians living on four reservations: Fort Berthold in North Dakota; Pine Ridge in South Dakota; White Earth in Minnesota; and Navajo in Arizona, New Mexico, and Utah. The principal areas of interest are

- the government and nongovernment efforts that help fill the nutritional needs of Indian households on the reservations,
- the adequacy of government-provided food packages and food stamps in meeting the nutritional needs of the Indian recipients, and
- the special nutritional needs of Indian recipients that are not addressed by the food assistance programs.

Because of widely varying demographic conditions found on the 304 federal Indian reservations throughout the United States, the information we found on these four selected reservations should not be considered as representative of all Indian tribes.

To determine what government and nongovernment food assistance efforts were being made at the four reservations, we interviewed officials with the U.S. Department of Agriculture (USDA) and the Department of Health and Human Services (HHS). We also interviewed state, county, and tribal officials and reviewed available documentation to identify all food programs on each of the four reservations. We gathered general demographic information on the four reservations from the U.S. Department of the Interior's Bureau of Indian Affairs (BIA).

To determine whether the food distribution packages and food stamps were adequate to meet the nutritional needs of recipients, we interviewed USDA, HHS, state, county, and tribal officials and reliable documentation to identify (1) the number of persons actually participating in the two principal food assistance programs, (2) food assistance program preferences of participants, (3) the adequacy of the amounts and nutritional values of foods provided by the food distribution and food stamp



program, (4) general food acquisition problems of food program recipients, (5) actions taken by USDA to correct identified food program deficiencies, (6) food distribution methods on the reservation, and (7) effects on nutritional value of traditional Indian food preparation practices.

To determine whether special nutritional needs of Indians were being addressed by these programs, we interviewed tribal and agency officials and reviewed available documentation to identify (1) delivery methods and on-reservation travel distances to food distribution points, (2) whether infant formula is received by all persons requesting it, (3) nutrition-related health problems, and (4) nutrition education efforts on the reservation.

As agreed with the requesters' offices, because of the technical difficulties in obtaining the necessary data, particularly within the time frame of this assignment, our review did not include an analysis of (1) how many Indians are eligible for but not receiving food assistance, (2) the extent to which individuals are participating in more than one federal program, (3) whether food stamp recipients are purchasing nutritionally adequate foods, (4) how the nutritional value of foods provided by these assistance programs may be affected after they are delivered to recipients, and (5) whether the maximum allotment of food contained in a Food Distribution Program on Indian Reservations (FDPIR) food package could be duplicated with food stamps.

We interviewed appropriate federal and state food program officials and staff at headquarters and local field offices. We discussed matters of concern with tribal officials and food program administrative staff at each of the four reservations. We also interviewed community service food program officials. A list of the sites we visited is presented in appendix V.

In conducting our analysis, we relied primarily on the most recent available data. We did not independently verify the accuracy of the data used in our analysis. We examined and discussed with appropriate officials the results of any studies, audits, or other relevant reports. We discussed our findings with USDA, HHS, and tribal officials and gave each of them an opportunity to formally comment on a draft of this report. The comments provided to us were incorporated in the report as appropriate.

We performed our review between September 1988 and April 1989.

# Food Assistance Programs on the Four Reservations

For over 60 years, various studies have reported on the poor economic and environmental conditions of Indians living on reservations and the accompanying problems of high unemployment, poor housing, transportation, health, and nutrition. Experts have cited inadequate Indian diets, which can lead to malnutrition, as contributors to health problems, and attention has been focused on both the quantity and quality of available food. The growth of several federally funded and private sector food programs in recent years suggests that hunger, which formerly prevailed on the reservations, has now been diminished. However, some problems remain related to promoting the maximum nutritional value of the food available through federal food programs.

To help meet the nutritional needs of low-income Indian and non-Indian reservation households, various Food and Nutrition Service (FNS) food assistance programs are available on Indian reservations. These federal food assistance programs include (1) the Food Stamp Program; (2) the Food Distribution Program on Indian Reservations; (3) child nutrition programs, including the Special Supplemental Food Program for Women, Infants, and Children (WIC), the Commodity Supplemental Food Program (CSFP), the National School Lunch Program, the School Breakfast Program, the Child Care Food Program, the Summer Food Service Program for Children, the Special Milk Program for Children, and the Nutrition Education and Training Program; (4) the Food Distribution Program for Charitable Institutions; (5) the Food Distribution Program, which donates food to charitable institutions and to district relief agencies to provide meals for people in declared disaster areas; and (6) the Temporary Emergency Food Assistance Program (TEFAP), which distributes commodities to needy households.<sup>1</sup> In commenting on a draft of this report, USDA noted that FNS programs that meet the special nutritional needs of specific age groups do much to complement the benefits provided by its Food Stamp Program and FDIPIR, which are administered by the states and tribes. (See app. IX.) In addition, nutrition programs administered by the Department of Health and Human Services' Administration on Aging provide meals to eligible senior citizens on reservations. However, program eligibility criteria, lengthy application forms, transportation problems, and other factors can create obstacles for Indians living on reservations in obtaining food assistance benefits.

<sup>1</sup>In fiscal year 1988, TEFAP participants received butter, process cheese, nonfat dry milk, cornmeal, flour, honey, and milled rice. For fiscal year 1989, under terms of the Hunger Prevention Act of 1985 (P.L. 100-435), USDA is purchasing additional TEFAP commodities: peanut butter, dried egg mix, beans, canned pork, and raisins. These commodities are packaged in household sizes specifically for TEFAP distribution.

In addition to federal food assistance programs, nonfederal sources provide food and other assistance for low-income Indians living on or near reservations. Some of these sources include local churches; social service agencies; the Christian Relief Services; Second Harvest, with its network of food banks; the Famine Relief Fund; and Feed My People.

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## Reservation Households Rely Primarily on Two Federal Food Assistance Programs

The Food Stamp Program and FDPIR are the two primary federal food assistance programs available to Indians living on or near the four reservations we visited. Household participation in each of these two programs varies among the four reservations.

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## The Food Stamp Program

The Food Stamp Program is a food assistance program available to all applicants who meet the eligibility criteria. The program is administered as a cooperative federal-state effort. The Food Stamp Act of 1977 (P.L. 95-113, Sept. 29, 1977), as amended, is the authorizing legislation for both food stamps and FDPIR. The program was designed to increase the food purchasing power of low-income households to permit them to buy a more nutritious, low-cost diet. It provides assistance in the form of food coupons redeemable at retail food stores. Coupon purchases are intended to supplement foods that participants would normally purchase out of family income or other welfare program payments.

No precise information is available on the amount of food stamp benefits received by Indians.<sup>2</sup> However, periodic surveys of the food stamp recipient population indicate that about 1 percent of the food stamp households (approximately 80,000 households nationwide) are Indian households. Total fiscal year 1988 food stamp program costs were about \$12 billion, providing an average monthly benefit of about \$52 per person.<sup>3</sup> The Food Stamp Program is operated by a state's local food stamp offices, some of which are located on and some near the four reservations we visited. (See table II.1.) Indian households eligible to receive food stamps must apply at the local food stamp office.

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<sup>2</sup>Food Stamp Program benefit data are not categorized by racial or ethnic groupings.

<sup>3</sup>This information is from the Congressional Research Service, Library of Congress, as of March 22, 1989.

**Appendix II  
Food Assistance Programs on the  
Four Reservations**

**Table II.1: Food Stamp Office Locations**

|               | On reservation | Off reservation |
|---------------|----------------|-----------------|
| Fort Berthold | 0              |                 |
| Navajo        | 7              |                 |
| Pine Ridge    | 1              |                 |
| White Earth   | 1              |                 |

<sup>a</sup>Off-reservation food stamp offices are located in those counties encompassing the reservations' borders.

**Basis of Food Stamp Benefits**

Food stamp benefits are based on household size, countable monthly income,<sup>4</sup> and the cost of purchasing food using USDA's Thrifty Food Plan (TFP). TFP, developed in 1975 and revised in 1983, incorporates information on food consumption, prices, and nutrient composition of foods and on human nutritional requirements. The plan is made up of different types of foods (food groups) that households might buy or obtain from other sources to provide nutritious meals and snacks for household members. The TFP for a family of four (man and woman, 20 to 50 years of age; children 6 to 8 and 9 to 11 years of age) by law constitutes the basis for establishing allotments to households participating in the Food Stamp Program. The maximum monthly allowance for purchasing the items in the TFP for fiscal year 1989 ranges from \$90 for a one-person household to \$540 for a family of eight and \$68 for each additional person over eight.

These allotment amounts are adjusted yearly to reflect the cost of the TFP in the preceding June. The theory behind food stamps is that a participating household is expected to be able to devote 30 percent of its countable cash income to food purchases, with food stamps making up the difference between that amount and the sum determined to be sufficient to buy an adequate, low-cost diet. Most households do not receive maximum monthly allotments, because they have countable income. (An example of the calculation of food stamp benefits for an eligible four-person household is presented in app. VI.)

The TFP is designed to provide a family of four a full diet for a month (in both quantity and nutritional value of food), and the maximum or "full" benefit paid to households with no countable income is sufficient to purchase this full diet. However, about 81 percent of food stamp recipients

<sup>4</sup>Not all of a household's income is actually counted. Some exclusions and deductions are allowed when determining its food stamp benefits. In effect, this means that the program assumes households can spend about 20 to 25 percent of their gross cash income on food, according to a Congressional Research Service report to the Congress, How the Food Stamp Program Works (Oct. 1, 1987).

do have countable income and therefore do not get the full benefit;<sup>6</sup> thus, in practice the food stamp benefit is supplemental.

## The Food Distribution Program on Indian Reservations

FDPIR is an outgrowth of the Needy Family Program, established in 1936 as a state-administered commodity distribution program. Under this program, the first federal food packages were provided to needy persons. In the mid-1950s, the commodity foods provided under the program consisted of five items: rice, cornmeal, flour, dry beans, and nonfat dry milk.

The Food Stamp Act of 1977 created FDPIR as a replacement for the Needy Family Program on Indian reservations. FDPIR is administered by state agencies or tribal governments. The program was designed to provide a variety of food commodities in lieu of food stamps to eligible Indian and non-Indian reservation households and Indian households living near reservations.

FDPIR benefits are issued on a household basis in the form of a monthly food package. As a result of the 1977 act, FDPIR food packages were expanded to include about 60 types of foods. A typical package, weighing about 50 to 75 pounds, contains foods from each of the four basic food groups: meat, vegetable/fruit, dairy, and grain.

At the close of fiscal year 1988, FDPIR was administered by 86 Indian Tribal Organizations and six states on 215 project areas (Indian reservations or Oklahoma Indian areas). Average monthly program participation in 1988 was about 135,000 persons in 27 states. Benefits totaled about 100 million pounds of food valued at about \$49 million that provided an average monthly benefit value of just under \$29 per person. Some 90 percent (by weight), or 80 percent (by dollar value), of the food provided was purchased with appropriated funds designated for FDPIR;<sup>7</sup> the remainder represents USDA-donated food commodities.<sup>7</sup>

The Navajo and White Earth FDPIR programs are operated by the Navajo Tribe and White Earth Reservation Tribal Council, respectively, through

<sup>5</sup>Characteristics of Food Stamp Households, Summer 1986, Food and Nutrition Service, USDA

<sup>6</sup>These included food items such as apple juice and apple sauce, dry and canned beans and corn, canned beef, pork and chicken, egg mix, luncheon meats, orange juice, canned fruits, canned salmon and tuna, raisins, potatoes, cornmeal, flour, macaroni and spaghetti, rolled oats, evaporated milk, vegetable oil and shortening, peanuts and peanut butter.

<sup>7</sup>These typically included food items such as butter, cheese, honey, nonfat dry milk, and rice.

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**Appendix II  
Food Assistance Programs on the  
Four Reservations**

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agreements with FNS. The Pine Ridge FDPIR program is operated by the Oglala Sioux Tribe through an agreement with the South Dakota Division of Education. The Fort Berthold FDPIR program is operated by the Three Affiliated Tribes—the Mandan, Hidatsa, and the Arikara Tribes—through an agreement with the North Dakota Department of Public Instruction. Both the Pine Ridge and Fort Berthold FDPIR programs are operated under the administrative authority of their respective state agencies.

The FDPIR programs at all four reservations have agreements with state Food Stamp Program offices wherein the programs exchange lists of participants on a monthly basis. This is done to keep individuals from participating in both programs at the same time, a practice that is prohibited by law.

**Basis of FDPIR Benefits**

Initially, FNS did not have a nutritionally-based or quantity-based methodology for the design of the FDPIR food package—the package was the product of an evolving commodity distribution program. The nutritional content of the FDPIR package did not become a concern until the late 1970s and early 1980s when nutrition was raised as a national issue.

From 1980 to 1981, FNS made adjustments to the food package to reflect food preferences expressed by tribes it surveyed (primarily based on responses from the Navajo Reservation) and to increase nutrient levels according to FNS' nutritional analysis of the package. Although FDPIR is intended to provide an acceptable alternative to food stamps, at no time during the design phase of FDPIR or as part of FNS' 1980 nutritional analysis had the package been compared with the nutrient goals and quantities of items in TFP, according to FNS officials. However, FNS made this comparison as part of its 1986 Task Force's review of FDPIR.<sup>8</sup> The FNS Task Force concluded that the package met most of the nutrient and energy goals of TFP, and in areas where it did not the package was subsequently modified to more closely meet TFP goals.

**Delivery of Food Distribution Packages**

Food packages are provided to FDPIR participants at program warehouses as well as at tailgate sites located at various points on the reservations.<sup>9</sup> Only the White Earth FDPIR program delivers food packages to

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<sup>8</sup>Review of Food Package and Nutrition Education Components, Task Force Report, FNS, USDA (July 1986).

<sup>9</sup>These are usually remote reservation locations where food is delivered in pickup trucks or other vehicles.

the homes of participants who have a documented need. However, provisions can be made for elderly and handicapped participants at the Navajo, Fort Berthold, and Pine Ridge Reservations to have someone, usually a family member, pick up food packages.

At the Navajo Reservation, participants can pick up their monthly food packages at 6 satellite warehouses or 64 tailgate delivery sites. There is a distribution site within about 30 miles of all areas on the reservation. Participants at the Pine Ridge Reservation can pick up food packages at the main FDPIR warehouse, the one satellite warehouse or at nine tailgate sites. There is a distribution site within about 40 miles of all areas on the reservation. At the Fort Berthold Reservation, participants can pick up food packages at the one FDPIR warehouse or at three tailgate delivery sites. There is a distribution site within about 50 miles of all areas on the reservation.

At the White Earth Reservation, about 85 percent of FDPIR participants pick up their food packages at the one FDPIR warehouse. The warehouse is located within about 45 miles of all areas on the reservation. The food packages are delivered directly to the homes of the remaining participants who have a documented need for home delivery, such as the elderly or handicapped.

Elderly or handicapped participants in these programs can designate someone to pick up their food packages for them. In addition, representatives from the Community Health Representative and Senior Citizens Centers programs assist the elderly and handicapped by providing transportation or delivering their packages to them. The food packages are designed for individual or household use only and are not available to groups to prepare food for the elderly, handicapped, or those who do not have cooking facilities.

According to tribal officials at the four reservations, providing participants with food packages once a month is sufficient. Also, food packages are provided to participants in compliance with FNS regulations regarding expedited service for applicants with incomes below a specified amount and thereby qualifying for immediate benefits; that is, food packages are provided generally within one calendar day after the application has been filed if they appear to have a household income below the program limit and thus qualify for expedited service. The application is then verified during the ensuing month.

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## Eligibility Requirements for Food Stamps and FDPIR

While the Food Stamp Program and FDPIR eligibility criteria are similar, some criteria differences can create participation obstacles for some households.

To be certified as eligible for food stamps, a household must meet income and resource requirements unless all members receive Aid to Families With Dependent Children or Social Security Income. Unless exempted for reasons such as age, disability, or current employment, household members must register for work and comply with the requirements of an training and employment program. In addition, the household must meet several other nonfinancial standards, which include citizenship or eligible alien status, provide social security numbers, and if a student, meet certain criteria.

The program sets maximum allowable resources that households must meet to be eligible for benefits. The combined value of a household's liquid and nonliquid resources, such as cash on hand, money in checking and savings accounts, stocks and bonds, unlicensed vehicles, and recreational property cannot exceed \$2,000, unless the household has an elderly member age 60 or over in which case the limit is \$3,000. Licensed vehicles<sup>10</sup> are totally excluded if they are used primarily for income-producing purposes, necessary for long-distance travel to employment, used as a home, or necessary to transport a physically disabled person. In addition, all nonexempt vehicles are evaluated for fair market value and the portion of the value that exceeds \$4,500 is attributed toward the household's resource level, regardless of any encumbrances on the vehicle. A vehicle is also evaluated to see if it is equity exempt as the household's only vehicle or necessary for employment reasons. If not equity exempt, the equity value will be counted as a resource. If the vehicle has a countable market value in excess of \$4,500 and also a countable equity value, only the greater of the two will be counted as a resource. For example, an extra vehicle is evaluated for both fair market value and equity value. If the fair market value is \$5,000 and the equity value is \$1,000, the household's countable resources would be credited with the \$1,000 equity value since it is more than the \$500 excess fair market value (that portion exceeding the \$4,500 limit).

Participation in the Food Stamp Program is also limited to households who meet income (earned and unearned) eligibility standards. The eligibility of households without elderly or disabled members is based on

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<sup>10</sup>On Indian reservations that do not require licensing, unlicensed vehicles are treated like licensed vehicles.



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gross income as well as net income. A household with an elderly or disabled member has to meet only the net income standard. Eligibility and participation in FDPIR are based on application and certification of reservation or tribal status, income and resource qualifications, and other nonfinancial factors similar to those of the Food Stamp Program. (FDPIR and Food Stamp Program income limits are shown in table II.2.)

**Table II.2: FDPIR and Food Stamp  
Monthly Income Standards as of October  
1988**

| Household size         | FDPIR net<br>income limit | Food stamps           |                     |
|------------------------|---------------------------|-----------------------|---------------------|
|                        |                           | Gross<br>income limit | Net income<br>limit |
| 1                      | \$587                     | \$626                 | \$481               |
| 2                      | 751                       | 838                   | 645                 |
| 3                      | 914                       | 1,050                 | 808                 |
| 4                      | 1,077                     | 1,263                 | 971                 |
| 5                      | 1,241                     | 1,475                 | 1,135               |
| 6                      | 1,404                     | 1,687                 | 1,298               |
| 7                      | 1,567                     | 1,900                 | 1,461               |
| 8                      | 1,731                     | 2,112                 | 1,625               |
| Each additional person | + \$164                   | + \$213               | + \$164             |

**Eligibility Differences**

FDPIR's and the Food Stamp Program's eligibility requirements, although similar, have some differences in addition to their income standards that depending on individual household circumstances, could pose participation obstacles. For example, a household may be eligible for FDPIR benefits but ineligible for food stamps because the value of an owned vehicle, which is not counted in the FDPIR eligibility determination, by itself or when added to other household resources may push the household's countable resources beyond food stamp eligibility limits. Table II.3 shows some of the differences in eligibility criteria between FDPIR and food stamps.

**Table II.3: Examples of Differences  
Between FDPIR and Food Stamp  
Eligibility Requirements**

| Eligibility requirement   | FDPIR   | Food stamps |
|---|---------|-------------|
| Nonexempt household members must register for employment  | No      | Yes         |
| Maximum household resources allowed (does not include elderly or disabled households)                           | \$1,750 | \$2,000     |
| Household resource value calculation includes fair market value of some household vehicles in excess of \$4,500 | No      | Yes         |

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The Food Stamp Program also includes several allowable income deductions that are not duplicated in FDPIR, such as a standard deduction of \$106 a month, an excess shelter deduction up to \$170 a month,<sup>11</sup> and a nonreimbursed medical expenses deduction for the elderly and disabled.<sup>12</sup>

**Preferences of  
Participants for FDPIR or  
Food Stamps**

Participation preferences for FDPIR and the Food Stamp Program are determined by a variety of individual factors. Households that are eligible to participate in both programs may from month to month choose to participate in one program and then the other for a number of different reasons.

Participation in both programs on the four reservations as of December 1988 ranged from 38 percent to 90 percent of the total reservation Indian populations.<sup>13</sup> The rate of participation in FDPIR ranged from 12 percent of the population at the Navajo Reservation to 45 percent at the Fort Berthold Reservation. The rate of participation in the Food Stamp Program ranged from 26 percent of the population at the Navajo Reservation to 45 percent at the Fort Berthold Reservation. (See table II.4.)

**Table II.4: Indian Participation in FDPIR and Food Stamp Programs in December 1988**

| Reservation  | Number |                          | Percent <sup>a</sup> |             | Total participation<br>FDPIR & food<br>stamps |
|--------------|--------|--------------------------|----------------------|-------------|---|
|              | FDPIR  | Food stamps <sup>b</sup> | FDPIR                | Food stamps |   |
| Ft. Berthold | 1,195  | 1,201                    | 45                   | 45          | 90  |
| Navajo       | 22,340 | 48,180                   | 12                   | 26          | 38  |
| Pine Ridge   | 3,656  | 5,693                    | 18                   | 28          | 46  |
| White Earth  | 1,189  | 1,225                    | 28                   | 29          | 57  |

<sup>a</sup>To obtain percentages, we used the total resident Indian population for the four reservations, which was 2,663 for Fort Berthold, 185,661 for Navajo, 20,206 for Pine Ridge, and 4,268 for White Earth (Bureau of Indian Affairs January 1989 estimates).

<sup>b</sup>Since the Food Stamp Program does not collect recipient racial information, the number of Indian recipients is estimated on the basis of household location.

<sup>11</sup>Excess shelter costs are the costs of fuel, utilities, and rent or mortgage payments that are more than 50 percent of the household's income after other deductions. For households with an elderly or disabled member, there is no maximum amount for excess shelter costs.

<sup>12</sup>Medical expenses for an elderly or disabled member that are more than \$35 per month, if they are not reimbursed by insurance, can be deducted.

<sup>13</sup>We chose a single month's FDPIR and food stamp participation data—December 1988—to avoid the possibility of double-counting households that can switch from FDPIR to food stamps in consecutive months. The December data were also the most recent monthly data uniformly available at all four reservations at the time of our review.

Indian tribal and food program officials told us that they believe some eligible Indians are not participating in these food assistance programs, but could not provide us with any specific information. These officials have not conducted any studies relating to the number of persons eligible to receive program benefits. According to these officials, possible reasons for not participating include pride, lack of transportation, and the erroneous belief that they are not eligible for program benefits.

Although Indians cannot participate simultaneously in FDPIR and food stamps, they can participate in other food assistance programs, such as WIC or the National School Lunch Program in conjunction with FDPIR or food stamps. However, we found no data to show the extent of multiple program participation on the four reservations.

Tribal officials on the four reservations cited reasons why recipients may prefer to participate in either FDPIR or the Food Stamp Program. Tribal officials told us that people who prefer food stamps to food packages may do so for some of the following reasons:

- Food stamps allow the purchase of a wider variety of food items not available in the food distribution package, such as fresh fruits and vegetables, and special dietary items.
- Recipients do not like the foods in the food packages.

Tribal officials at the four reservations offered the following reasons why Indian participants may prefer FDPIR over food stamps:

- FDPIR's application process is a less complex and time-consuming process.
- Asset and income requirements are not as stringent for FDPIR as for food stamps, making it easier for recipients to qualify for FDPIR.
- FDPIR represents an alternative to food stamps in rural areas where grocery stores may not be conveniently located.
- Numerous FDPIR distribution sites on the reservations (warehouses and tailgates) make it easy for recipients to obtain food.
- Quantity of foods provided under FDPIR are not prorated in accordance with income levels, as are food stamps. As a result, in some cases the recipients get more food through FDPIR than they would with food stamps.

According to food stamp and tribal officials at the Pine Ridge and Fort Berthold Reservations, recipients often switch between food stamps and FDPIR. However, program and tribal officials could not provide us with

any specific data on the frequency with which reservation households switch between food stamps and FDIPIR.

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## Obstacles to Program Participation

Factors such as the application process, transportation problems, and treatment of resources can affect participation in the two programs. According to program officials and various studies, some Indians are intimidated by the food stamp application process, which to them appears to be complicated and time-consuming. The Food Stamp Program application is sometimes combined with the application for other types of state-administered public assistance, including Aid to Families With Dependent Children and medical assistance. Although combining forms is more efficient than using separate applications, the South and North Dakota food stamp application forms, for example, are 22 and 34 pages, respectively, whereas their FDIPIR application forms are 2 and 4 pages, respectively.

Like the application process, transportation problems can present obstacles for food stamp and FDIPIR recipients. Some Indians have either no or only occasional access to a vehicle. For those Indians with vehicles, transportation may be costly and particularly difficult in inclement weather. Gas prices on the reservations were in some cases 50 percent higher than gas prices off the reservations. In addition, at the Navajo Reservation about 72 percent of approximately 8,000 miles of roads is unpaved. Bad weather can make these roads impassable. Winters particularly aggravate the transportation problem for Fort Berthold and Pine Ridge residents. In some instances, severe weather may preclude recipients from picking up their food packages or traveling to a grocery store. In contrast, the White Earth Reservation is generally served by all-weather roads affording year-round access to facilities even under poor weather conditions, except during heavy snow conditions when roads may be impassable for several days.

Another obstacle to participation for some Indian food stamp applicants is having resources, usually a vehicle, with a value that exceeds Food Stamp Program limits. However, poor road conditions, inclement weather, and remote living locations on the reservations make having a reliable vehicle necessary. According to a food stamp official, if a family has a vehicle that is less than 3 years old, the vehicle will in all likelihood have a value too high for the family to qualify for food stamps. In contrast, FDIPIR does not consider the value of vehicles when resources are calculated.

Specific information on the extent to which these obstacles were a barrier or prevented participation in either program was not available. Data of this nature are not collected as part of operating these programs.

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## Reservation Households Also Rely on Nonfederal Food Assistance

In addition to federal food assistance, many nonfederal organizations provide food and other assistance to Indians. They include food banks, churches, and other local nonprofit social service agencies. Some of these food providers are supported by national and international organizations. Three of the four reservations we visited received some type of nonfederal food assistance in the last 2 years. According to tribal officials, Fort Berthold does not receive nonfederal food assistance because of its small size and remote location.

We identified five food banks, nonprofit social service agencies, and churches, and four large national nonfederal organizations that help to alleviate hunger and other needs by actively raising funds to provide food, clothing, and other assistance to the reservations. Many organizations primarily provide emergency food and rely to a large extent on donated funds and food. Except for those who receive food from shelters, individual Indians do not receive food on a regular basis from these nonfederal food assistance organizations. Information regarding the adequacy of the amount of food provided by these nonfederal programs was not available, except for the Navajo Reservation. Food bank and Department of Health and Human Services' (HHS) Indian Health Service (IHS) officials told us that food provided through nonfederal sources on the Navajo Reservation has greatly increased in recent years. Although the amount of food provided has increased, according to a 1989 report on hunger in Arizona,<sup>14</sup> many nonfederal food providers reported being short of funds and unable to meet all of the food and other needs on the reservation. Further, the total amount of nonfederal food donated to Indian reservations is relatively small compared with the two main federal food programs.

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## Food Banks

Food banks are nonprofit food collection and distribution programs. Food banks solicit food from national and local sources for distribution to nonprofit agencies that assist the poor, victims of crisis, and the hungry. Food banks collect donated foods that are over-produced, damaged, or mislabeled. These foods are provided by churches, manufacturers,

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<sup>14</sup>Hunger in Arizona. The Arizona State Advisory Council on Hunger and the Department of Economic Security (Jan. 1989).

wholesalers, retailers, home gardeners, orchards, and farmers, as well as government agencies such as USDA and the Federal Emergency Management Agency.<sup>15</sup>

The Second Harvest organization has fostered a partnership between the nation's food industry, which has demonstrated its willingness to get involved in alleviating hunger, and local food banks, which provide food to community charities serving the hungry. Second Harvest serves as an agent for the donors and solicits donations of surplus food from manufacturers and retailers and then distributes the food to over 200 food banks throughout the nation.

During 1987 approximately 387 million pounds of food were solicited, donated, and distributed by the network to over 38,000 community agencies, including Indian reservations, soup kitchens, church pantries, senior citizen centers, and other organizations with feeding programs. Food banks serving the Navajo Reservation include the Echo Food Bank in Farmington, New Mexico; the Roadrunner Food Bank in Albuquerque, New Mexico; and the Northern Arizona Food Bank in Flagstaff, Arizona. Food banks serving the Pine Ridge and White Earth Reservations include the Nebraska Food Bank Network in Omaha and the Helping Hands Food Shelf, Mahanomen, Minnesota, respectively. The Echo Food Bank, the Roadrunner Food Bank, and the Nebraska Food Bank network are all part of the Second Harvest Food Bank network.

In calendar year 1988 food banks provided approximately 360,000 pounds of food to about 15,800 Navajos through about 160 church and social service agencies. In September 1988 the Nebraska Food Bank Network in Omaha shipped 38,000 pounds of food to the Pine Ridge Reservation. The Helping Hands Food Shelf is the only food bank on the White Earth Reservation. This food bank provides emergency food service to about 12 to 15 households a month.

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### **Other Nonfederal Food Assistance Organizations**

We also identified other nonfederal food assistance organizations on three of the four reservations we visited. They include local church and social service agencies, the Christian Relief Services, an international organization headquartered in Washington, D.C.; the Famine Relief

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<sup>15</sup>The Federal Emergency Management Agency was established in 1979 in the executive branch as an independent agency to provide a single point of accountability for all federal emergency preparedness, mitigation, and response activities to natural, technological, and attack-related emergencies.

Fund, an international organization headquartered in Warrenton, Virginia; and Feed My People, an international organization headquartered in Phoenix, Arizona. The Christian Relief Services solicits contributions of food, clothing, medical, and other services and donates the contributions directly to the recipients. The Famine Relief Fund provides food and other items to Indians through two entities: the American Indian Relief Council and the Feed the Children Program. Feed My People provides emergency relief and food assistance.

**Local Church and Social Service Agencies**

Navajo tribal officials identified local church and social service organizations as nonfederal food providers. Funding and food are provided to these groups through a variety of public and private sources. For example, we identified several agencies that provided various amounts of food to Navajos in calendar year 1988:

- The Saint Bonaventure Indian Mission in Thoreau, New Mexico, provided about 36,500 meals through its soup kitchen and its Meals on Wheels programs.
- The San Juan Emergency Shelter in Farmington, New Mexico, provided about 6,136 meals.
- The Daily Bread Lunch Program in Farmington provided about 19,683 meals.

**Christian Relief Services**

The Christian Relief Services organization provides food at the Navajo and Pine Ridge Reservations. During 1987, Christian Relief Services distributed a total of \$2,861,958 in cash, food, and other assistance to various agencies and organizations throughout the world. Most donations were food. The Pine Ridge Reservation received \$180,045 in donations and the Navajo Reservation received \$8,000 in donations. The types of food donations were rice, corn, fresh fruit, turkeys, milk, and vegetable seeds.

Christian Relief Services is also helping with water well projects on the Pine Ridge Reservation to provide clean drinking water for residents and to provide irrigation for a truck farming operation. The farming operation produces fresh vegetables for sale on the reservation at nominal prices.

**Famine Relief Fund**

The Famine Relief Fund was identified as a nonfederal food provider at the Pine Ridge Reservation. The Famine Relief Fund began to provide food and nonfood items to the Pine Ridge Reservation in November 1988, when Feed the Children Program, a subsidiary of the Famine Relief Fund, sent the reservation a shipment of turkeys. Since that time,

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the Feed the Children Program has provided 2,109 cases of frozen foods to Pine Ridge, valued at \$101,124. The American Indian Relief Council has provided vegetable seeds with a retail value of \$2.2 million and intends to provide an additional \$800,000 in vegetable seeds to the Pine Ridge Reservation. The seeds will be distributed to Indian families and community leaders for use in home gardens and community farms. The Famine Relief Fund also intends to purchase a tractor, plow, and disk for the garden project. If the garden program is successful, the Famine Relief Fund intends to establish a cannery at Pine Ridge for the 1990 season.

**Feed My People**

The Feed My People organization was identified as a nonfederal food provider at the Navajo Reservation. Feed My People is a nonprofit organization that has existed for the past 25 years. It provides food, medicines, and other vital supplies to victims of famine, hunger, and deprivation in 35 countries. In 1988 Feed My People provided approximately 173,000 pounds of food to the Navajo Reservation through the Northern Arizona Food Bank.



# Nutritional Adequacy of Benefits Provided by Primary Food Assistance Programs

The Food Stamp Program and FDIPIR are designed to provide recipients with a more nutritious diet by increasing food purchasing power in the case of the Food Stamp Program and providing food in the case of FDIPIR. Because many variables affect what individuals consume, we were not able to determine the nutritional adequacy of the program benefits for specific individuals. These variables include the specific nutrient content of foods purchased or selected, quantity of food actually ingested, impact on nutrients from food preparation methods, other foods ingested, and the variable nutritional needs of individuals, particularly those with diet-related diseases.

Food stamp benefits are based on the cost of meals under TFP (USDA's lowest cost diet plan) that specifies quantities and types of foods that can provide a nutritious diet. Similarly, the FDIPIR food package is designed to help low-income households obtain a more nutritious diet. Except for food stamp households with no net income, foods supplied under these programs are not intended to provide a complete monthly amount of food but to supplement the households' existing food budget in order to provide more nutritionally balanced meals.

The four reservations have a variety of special nutritional needs. Many of the diet-related conditions found on the four reservations can be prevented or their complications reduced if changes are made to the content of foods in FDIPIR packages. However, despite the strengths and improvements made to the packages, additional improvements are still needed, according to IHS and tribal officials.

The effectiveness of FDIPIR and food stamps to improve the nutritional status of households on the four reservations depends upon a number of post-delivery factors. Traditional Indian cooking practices, food preparation, and lack of refrigeration may have an adverse affect on the nutritional value of foods obtained from FDIPIR and food stamps.

Nutrition education can help ensure that Indians receive maximum nutritional benefits from food packages and food purchased with food stamps. With nutrition education, food packages can be used to prepare nutritious meals for Indians, including those with diet-related diseases, according to reservation health officials. For food stamp recipients, nutrition education can help recipients make more knowledgeable decisions about purchasing foods according to nutrient value and cost. However, it appears that the amount and type of nutrition education at the four reservations have varied from not emphasizing nutrition education to providing cooking demonstrations, nutrition lectures, and one-on-one

nutrition counseling to making available nutrition-related brochures and other written materials.

## Adequacy and Nutritional Content of Food Stamp Benefits

The TFP, developed by USDA's Human Nutrition Information Service, has been used as the basis for the coupon allotment for the Food Stamp Program starting in January 1976. TFP was revised in 1983 to incorporate improved dietary standards and newer data on food consumption patterns of low-income households. The plan's goals were to reflect as much as possible the typical food choices of low-income households and to provide 100 percent of the Recommended Dietary Allowances (RDA) for energy, protein, and several vitamins and minerals, but somewhat less than the standard for zinc, folacin, iron, and vitamin E.<sup>1</sup> The 1983 TFP was developed for 11 sex and age categories.<sup>2</sup> Food consumption behavior, nutritional goals, and cost constraints were factors considered in defining these 11 categories for the 1983 TFP design.

The TFP specifies quantities of foods in the same form as they are brought into the kitchen. Some parts of this food, such as bones, fruit pits, and peelings, are discarded as inedible. In addition, it is assumed that one-half of the drippings and trimmable fat from meat, poultry, and fish will be discarded. Food composition data used in TFP development include adjustments to exclude energy and nutrients in inedible parts of food, one-half of the meat, poultry, and fish drippings and fat, and vitamins lost during cooking of all foods.

The 1983 TFP has three major design components:

1. Food consumption patterns of low-income Americans. TFP attempts to provide a food plan that is least disruptive to the food consumption

<sup>1</sup>Because research on human nutritional requirements is often incomplete or inconsistent, and because of variability in individual nutrient requirements, the RDAs represent an estimated, rather than an absolute, standard of dietary adequacy. They are revised periodically to reflect current scientific evaluation of the available nutrition research. RDAs have been established for protein, 10 vitamins, and 6 minerals. RDAs are designed to exceed the nutrient requirements of most individuals, but the allowances for energy are designed to reflect average needs of people of different heights and weights, ages, and activity levels. The fact that most RDAs are intentionally established to exceed the nutrient requirements of most people means that a dietary intake below the RDA is not necessarily inadequate for an individual whose requirements for a nutrient is average or even above average. It also means that the small percentage of persons who have unusually high nutrient requirements may not meet nutritional needs even when they consume nutrients at RDA levels. The RDAs are estimates of nutrient requirements for populations rather than for individuals. In addition, RDAs may need to be modified for people who are ill or injured.

<sup>2</sup>The 11 sex and age categories are children aged 1-2, 3-5, 6-8, and 9-11 years; males aged 12-14, 15-19, 20-50, and 51 years and over; and females aged 12-19, 20-50, and 51 years and over.

practices of food stamp recipients as determined by a USDA 1977-78 Nationwide Food Consumption Survey. This survey provided information on the quantities and prices of food used—purchased, home-produced, or received as a gift—by 4,400 households during a 1-week period and the food intake of about 12,000 household members for 3 days.

2. Nutritional goals. Dietary standards for the 1983 TFP are based on the National Academy of Sciences's 1980 RDAs for energy, protein, minerals, and vitamins. These standards are defined below:

Energy—set at the midpoint of 1980 RDA range.<sup>3</sup>

Protein, vitamins, and minerals—set at 100 percent of the 1980 RDA levels with the following exceptions: The standard for iron is set at least 90 percent of the RDA. It is less than the RDA as a result of adjustments to meet consumption patterns and nutrient requirements for the 11 sex and age categories considered in developing the plan. Standards for zinc, folacin, and Vitamin E are set at least 80 percent of the RDA. They are less than the RDA because the food supply does not provide sufficient zinc to meet RDA levels, and food composition data used to assess nutrients in the plan are notably unreliable with respect to folacin and vitamin E.<sup>4</sup>

Dietary fiber—No specific RDA standard has been set.<sup>5</sup> In the absence of RDAs for fat, cholesterol, caloric sweeteners, and sodium, amounts of these substances were limited to moderate levels as described by USDA/HHS Dietary Guidelines for Americans.

3. Cost constraints. The cost of the 1983 TFP (updated annually using the change in food costs for that period in the Consumer Price Index) has remained constant (in 1975 dollars) to the cost of the 1975 TFP for the

<sup>3</sup>The body needs energy to maintain all its functions. The energy in food is measured in units called kilocalories, usually referred to simply as a "calorie." A kilocalorie is the amount of energy required to raise the temperature of one kilogram of water one degree Celsius.

<sup>4</sup>Proteins are necessary for the growth and maintenance of body structures, including the bones, muscles, skin, and other solid parts of the body. Vitamins are used by the body to help regulate, maintain, or otherwise assist the various body functions, such as the formation of red blood cells and the development of bones. They are essential for good health. They are referred to by letters or by their chemical names. Small amounts of these compounds should be supplied daily in the diet. Minerals are also needed for the growth and maintenance of body structures. They are also needed to maintain the composition of the digestive juices and the fluids that are found in and around the cells.

<sup>5</sup>Dietary fiber is necessary for the normal function of the intestinal tract.

four-person household used in setting the food stamp allotment, which in turn equals the cost of the 1975 TFP's predecessor—the Economy Food Plan. Thus, except for inflation, the allotment level for four-person households has remained constant since 1971.

The maximum benefit under the Food Stamp Program is designed to provide an adequate quantity of food and nutrients for an entire month. However, because a benefit reduction is applied against food stamp allotments for households with outside income and benefits, most recipients do not receive the maximum allotment. Eligible recipients are expected to spend approximately 30 percent of their income on food, with food stamps covering the difference between TFP levels and recipients' expected contribution. Recipients with no income basically rely entirely on the Food Stamp Program and receive coupon amounts intended to meet the basic food needs in accordance with the TFP levels.

The Food Stamp Program design does not make adjustments to take into account families having age, sex, and energy consumption characteristics different from the four-person household upon which the food stamp benefit is based. (Benefits are adjusted to take into account the household size.) USDA does not make the food stamp benefit age and sex specific because current procedures are mandated by law.

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### **Factors on Indian Reservations That Affect Utilization of Food Stamp Benefits**

Various factors may affect how recipients use food stamps and thus the nutritional benefits derived from their use. On Indian reservations, these factors include variances in food prices, grocery store inaccessibility, and mismanagement or inadequate skill in buying and preparing foods. As a result, although the Food Stamp Program is designed to be nutritionally based, the nutritional impact of the food stamp benefit on reservation recipients is uncertain. In addition, because food stamp recipients may purchase any food items regardless of nutritional value, we could not determine the extent to which food stamps provided nutritional diets.

### **Varying Food Prices**

Differences in food prices, both on and off the reservations, can affect the purchasing power of food stamps. Tribal officials at three of the four reservations told us that while some large food stores on the reservations have comparable off-reservation food prices, most stores on the reservations often have higher food prices than those off the reservation. Therefore, many reservation residents must travel off-reservation to obtain a greater selection of grocery items at a lower cost, according

to the officials. White Earth officials told us that there was no difference in food prices in stores located on or off the reservation.

In February 1988 USDA's Economic Research Service reported the results of its analysis of the food cost variations among a sample of Standard Metropolitan Statistical Areas<sup>6</sup> and their implications for the Food Stamp Program. The report stated, in part, that differing supermarket prices and household purchase practices can affect real food stamp benefits.<sup>7</sup> The report noted that supermarket prices within cities typically vary by up to 7 percent, with extremes of up to 25 percent. Although the report did not specifically review the variation of food prices or their affect on Indian reservations, it nevertheless indicates that food stamp benefits for reservation residents can be affected by the costs of food both on and off the reservation.

#### Grocery Store Inaccessibility

Because of the sparse number of grocery stores on the Fort Berthold, Navajo, and Pine Ridge Reservations and generally high food prices, Indians often travel to an off-reservation town to shop where food prices are generally lower and selection is greater, according to tribal officials. To do so, some food stamp recipients must travel long distances. In contrast, food stores are more numerous and accessible on the White Earth Reservation.

#### Household Management

Some program officials believe that households may run out of food because of how they manage their food stamps rather than an inadequate quantity of stamps. These officials stated that examples include inadequate buying practices, poor food preparation skills, and inadequate monthly budgeting techniques of food stamps. However, they noted that their educational efforts to improve recipient food buying practices, preparation skills, and budgeting techniques are limited by available program funding for nutrition education.

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<sup>6</sup>An area that includes a city with a population of at least 50,000, or an area of at least 50,000 with a total metropolitan population of at least 100,000 (75,000 in New England). Outlying areas may also be included if they have strong commuting ties to these areas.

<sup>7</sup>Food Cost Variations: Implications for the Food Stamp Program. Technical Bulletin Number 1737. Economic Research Service, USDA. (Feb. 1988).

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## Adequacy and Nutritional Content of FDPIR Benefits

Both the quantity and types of foods offered in the food package have evolved from strictly surplus commodities to a combination of surplus and purchased foods required to meet the nutrient requirements of the standard household. This change was brought about by the 1977 Food Stamp Act, which required that USDA "improve the variety and quantity of commodities supplied to Indians to provide them an opportunity to obtain a more nutritious diet." In 1977 the food package was expanded from surplus commodities to include about 60 food items and now represents the four basic food groups. (See app. VII.)

To estimate the daily nutrient contributions of the food package, FNS assumes that foods are consumed in equal portions over a 30-day period. FNS recognizes that this is clearly an artificial assumption, but FNS officials told us that it is the only practical method currently available for estimating the nutrient contributions of the food package. By this measure, a representative selection of foods offered in the package provides the equivalent of or exceeds the RDA for food energy and many of the nutrients known to be essential to the diet. The precise dietary intake by a given household will depend on the selection made from the variety of food items offered, the availability of food, and other factors such as specific individual food consumption. USDA noted in commenting on this report that the number of servings offered in the package has been compared to the midpoint of recommended food servings developed by the American Red Cross in cooperation with USDA. USDA noted that only servings of fruits and vegetables fall short of the recommended serving size. (See app. IX.)

Tribal and program officials have varying opinions on whether food packages are adequate. For example, most Navajo tribal officials told us that the food package is adequate. A White Earth tribal official said the food packages are adequate in terms of quantity, but that some of the items in the food package contribute to the health problems found on the reservation, as discussed below. At the Fort Berthold and Pine Ridge Reservations, tribal officials told us that some Indians run out of food before the end of the month and that food package contents should be increased.

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## Food Package Variety

Participants are offered several choices of food items among the four basic food groups. About 60 different food items, most of which are canned, are authorized for FDPIR distribution, but not all of the items are consistently available for selection by the recipients of food packages. Various factors, such as adverse market conditions, food preferences of

tribal members, ordering practices of the tribal distribution staff, and storage space limitations at state and reservation program levels, may temporarily limit the variety of foods available at specific reservations for specific months. For example, 11 of the authorized FDPIR food items—apricots, prunes, salmon, pea beans, pumpkins, pinto beans, red beans, vegetable oil, rolled wheat, baby lima beans, and blackeye peas—were not available at the White Earth Reservation in November 1988. Although food items from each of the four basic food groups are generally available at each of the four reservations, the tribal nutritionist at Fort Berthold stated that the food packages do not contain a proper variety of food and that they are especially lacking in fresh fruits and vegetables. In commenting on this report, USDA noted that fresh fruits and vegetables have not been offered in the program because of a lack of adequate refrigeration during transportation and inadequate refrigerated facilities at the state and local warehouses. USDA noted that some recipients do not have access to an operating refrigerator in their homes and since the shelf life of fresh fruits and vegetables is very short, spoilage and waste would be high. As an alternative, a variety of canned vegetables and fruits are available throughout the year, according to USDA. (See app. IX.)

The absence of some FDPIR food items may reduce the overall nutritional value of the food package. According to an IHS nutritionist, because some food package items may not be available, the program participants' food choices are limited, which may force them to select and consume alternate food items that may be higher in fat content. For example, FDPIR recipients at the Navajo Reservation, unable to obtain canned chicken at the time of our review, may have instead consumed more canned beef or pork, which are about 63 and 135 percent higher in total fat content, respectively, than canned chicken. As a result, recipients may not get the full nutritional benefit of the food package as it was designed and/or may be receiving higher levels of fats, salt, and sugar than intended.

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## Quantity of Food in Package

In contrast to the Food Stamp Program, in which the level of benefits is increased or decreased in relation to the eligible participant's adjusted household income, the quantity of food provided in each recipient's FDPIR package remains constant, regardless of changes in adjusted net income, as long as the household's net income amount does not exceed the program's allowable net income limits. Thus, all household members, regardless of their sex and age, who meet the income and other eligibility criteria of FDPIR, receive the same amount of food. For example, an eligible FDPIR household consisting of two adults and four small children

with an adjusted monthly net income of \$1,200 would receive the same amount of food as an eligible FDIPIR household consisting of six adults with an adjusted monthly net income of \$400.

There are differences of opinion among tribal officials on the four reservations regarding the amount of food in the food packages. Tribal officials on two reservations—Fort Berthold and Pine Ridge—told us that the food packages do not provide a full month's supply of food. High unemployment levels (79 and 73 percent, respectively) leave reservation households with little or no income to supplement the foods received in the FDIPIR packages. As such, these tribal officials consider the amount of food contained in the packages inadequate to fulfill the monthly food needs of these no-income reservation households. White Earth Reservation tribal officials, on the other hand, told us that most reservation households have other income or food sources available to them and therefore do not rely on the food packages to supply their full monthly food needs. Tribal officials at the Navajo Reservation told us that the food in the packages is adequate. According to the FNS Food Distribution Director, FDIPIR is a supplemental food program and therefore the food package is not intended, by itself, to provide quantities of food equivalent to a 30-day supply.

It is the opinion of some tribal officials at the Pine Ridge and Fort Berthold Reservations that some Indians go hungry the last few days of the month. They stated there is no starvation on the reservation, but some hunger does exist. Tribal officials on the Fort Berthold and Pine Ridge Reservations identified two surveys of the general population on their respective reservations that indicated some people are going hungry. The Fort Berthold study, conducted by the tribal nutritionist in April 1985, found that 74 reservation households, or about 15 percent of the 712 households surveyed, ran out of food during the month. The Pine Ridge study, conducted by the reservation's Community Health Representative in December 1988 and January 1989, found that 99 reservation households, or about 41 percent of the 241 households surveyed, also ran out of food during the month. Tribal officials at the other two reservations were not aware of any similar surveys for their reservations.

According to tribal officials at the Navajo and White Earth Reservations, food packages are adequate in terms of quantity if managed properly. A tribal official stated that most program participants are able to supplement the food package with food obtained through other measures, including food purchases, gardening, hunting, and fishing.



We noted that if the food package alone is designed to provide recipients with their full energy needs (calories), any additional foods that are consumed by recipients, such as fresh vegetables and fruits that may be needed to meet some of the other nutrient requirements, could add calories in excess of their individual needs. For example, a household including a mother with young children who is receiving FDPIR benefits may also be receiving additional food items for the mother and children from other government food assistance programs, including the school breakfast and lunch program and WIC program. The mother may also be purchasing some food with family income and receiving still other non-government-provided food assistance from local food banks and agencies. The cumulative amount of food provided under these various programs may represent an excessive caloric level for some family members, which can ultimately result in obesity and other medical problems that are common on many Indian reservations. A tribal nutritionist said that many factors can contribute to the Indian obesity problem, including excessive food consumption, a poorly balanced diet, and a sedentary life style. She also noted that more nutrition education is needed to help correct the obesity problem on the reservations.

No studies have been conducted on the four reservations to determine how effectively the Food Stamp Program and FDPIR have met the nutritional needs of recipients. However, in 1985 FNS convened an intra-agency Task Force to study FDPIR and make recommendations for improving the food package and nutrition education components.

### Efforts to Improve the Nutritional Content of the Packages

The 1985 FNS Task Force analyzed the nutrient profile of the FDPIR food package to determine how well it met participants' nutritional needs and to see if it provided nutritional benefits similar to those available in the Food Stamp Program. The FNS Task Force concluded that the nutrient profile, in general, was comparable to the TFP and therefore in compliance with the regulatory requirement to provide a commodity package as an acceptable alternative to food stamp benefits. The FNS Task Force found that the fat content of the food package contributed 37 to 42 percent of the calories, which is higher than the TFP goal of 35 percent of calories from fat. The sodium levels were found to be well within the safe and adequate ranges suggested by the National Research Council of the National Academy of Sciences.

Where the package was not consistent with USDA's Dietary Guidelines for Americans, the FNS Task Force recommended several modifications, which were subsequently made. These changes resulted in a package

that provides 101 percent of the RDAs for food energy (calories) and 34 percent of the calories from fat.

In a 1986 report to USDA, Navajo Tribal Food and Nutrition Services officials observed that overall the total commodity food package provided good food and that it represented a better selection of food items than many people would choose on their own. The following strengths of the food packages were noted:

- Commodity chicken is lower in fat than fresh poultry with skin.
- Tuna is packed in water, not oil.
- Applesauce and fruit juices are unsweetened.
- Fruits are packed in light rather than heavy syrup.
- Peanuts are unsalted.
- A wide selection of complex carbohydrates is included in the form of dried beans, grains, and vegetables.

Although initially the food package was not nutritionally or quantity-based (because the package was the product of an evolving commodity distribution program), according to IHS officials, substantial improvements have been made in the nutritional content of the food package available through FDPIR, especially the reduction of sugar in the canned fruits and the inclusion of dry cereal and vegetable oil. In commenting on this report, USDA noted that FNS balances legislative requirements with agricultural market information, available funds, and recipient commodity preferences and modifies its purchases throughout the year to ensure that the packages provide an adequate level of commodities. (See app. IX.)

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## **Special Nutritional Needs of Recipients on the Four Reservations**

FDPIR recipients select from basically the same types of food on a monthly basis, regardless of health conditions. Despite the improvements made to the food package by FNS, IHS and tribal nutritionists say that further reductions in fat and sodium are needed. Obesity, diabetes, heart disease, and hypertension are the predominant diet-related conditions identified by tribal and IHS officials on the four reservations we visited. Available health data indicated that heart disease is the principal cause of death among Indians on the four reservations. According to IHS officials, reduced intakes of sodium and fat and increased exercise may help reduce and prevent the complications of this disease, which can be caused or worsened by poor nutrition. IHS and tribal officials told us that several food items contained in the available food package, such as canned meats, butter, and cheese, contain high amounts of fat that

can contribute to obesity, which may lead to other health problems. In addition, many of the canned meats and vegetables contain high amounts of sodium, which may contribute to hypertension.

In its 1986 report to USDA, the Navajo Tribe noted several limitations of the food package. Specific recommendations included the following:

- Reduce the fat content of pork to less than 50 percent of total calories.
- Reduce the fat content of beef to less than 40 percent of total calories.
- Make chicken and turkey available on a regular basis.
- Reduce the fat content of meatball stew to less than 35 percent of total calories.
- Omit luncheon meat.
- Reduce the sodium levels in all canned meats to that of fresh meat (50 to 65 milligrams per 3-ounce serving), and in all canned vegetables to a lower level (e.g., less than 50 milligrams per 1/2-cup serving).

IHS officials from the four reservations, the Diabetes Control Program, and the Nutrition and Dietetics Training Program believe that the selected items in the food packages still contain too much fat and sodium.

A recent review of the nutritional content of the food packages revealed that no fat has been reduced from canned meats since the Navajo Tribe's letter in 1986. For canned pork, 71 percent of the calories still come from fat; for canned beef, 52 percent; for canned meatball stew, 43 percent; and for luncheon meat, which is still available, 75 percent. In commenting on this report, USDA noted that reducing the fat content of meats would require buying them as a special purchase, which would result in fewer bidders and higher costs. (See app. IX.)

Although the FNS Task Force found that the sodium level of the total food package was well within the range of values established by the National Academy of Sciences, in reviewing the USDA nutrient analysis of specific food items, IHS found that some items contain excessive levels of sodium. The amount of sodium currently contained in the canned meats and vegetables is, in some cases, 5 to 8 times the maximum level recommended by the Navajo Tribe. In addition, luncheon meat contains over 15 times the maximum level of sodium recommended by the Navajo Tribe.

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**Appendix III  
Nutritional Adequacy of Benefits Provided by  
Primary Food Assistance Programs**

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In response to the Navajo Tribe's 1986 report, USDA stated that it could not meet the nutritional needs of all persons and could not provide therapeutic nutritional packages because of various program and cost constraints. However, according to one of the authors of the Navajo report, the recommended levels were not therapeutic but were based on recommendations by such organizations as the American Heart Association and USDA's Dietary Guidelines for Americans and were designed to prevent the occurrence of nutrition-related diseases. USDA, in commenting on this report, noted that reducing the salt level in canned meats to that of fresh meats would result in an unpalatable product and would also require special purchases resulting in fewer bidders and higher costs. (See app. IX.)

The 1988 Surgeon General's Report on Nutrition and Health stated that lack of access to an appropriate diet should not be a health problem for any American. The report also stated that food provided through food assistance programs should reflect the principles of good nutrition stated in the report. The report specifically recommends reducing the consumption of fat and sodium and states that the public might benefit from increased availability of foods and food products low in many substances, including fat and sodium. While reducing these substances would benefit the entire public, it is especially important for persons who have or are predisposed to obesity, diabetes, heart disease, and hypertension, according to IHS officials. In responding to this report, USDA noted that as new foods are added to the package, the sodium, fat, and sugar contents have been evaluated and reduced when practical and economically feasible. Examples include luncheon meat and ready-to-eat breakfast cereals, which have restricted sugar and sodium levels to bring them into alignment with WIC requirements, according to USDA. (See app. IX.)

Although FDPIR and the Food Stamp Program do not specifically address these special dietary needs, IHS nutritionists advise that recipients with diet-related health conditions or concerns adopt various food preparation practices, such as baking or broiling instead of frying (to reduce the fat content) and rinsing canned meats and vegetables (to reduce the sodium content) before use. These suggested practices could allow recipients to more fully utilize the foods provided by FDPIR that otherwise would aggravate their nutrition-related health condition.

In addition, food stamp and tribal officials at the Pine Ridge and Fort Berthold reservations stated that recipients switch from food packages to food stamps in order to purchase items not available in the package.

For example, a Fort Berthold Reservation food package recipient who has diabetes switched to the Food Stamp Program at her physician's recommendation so that she could purchase food items lower in fat and sodium. Although the Food Stamp Program can accommodate special dietary needs of recipients, IHS nutritionists said that more nutrition education is needed to help recipients acquire the knowledge, skills, and behavior modification necessary to achieve nutritious diets.

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### Special Nutritional Needs of Infants, Children, and Pregnant Women

Although FDIIR and the Food Stamp Program do not specifically address special dietary needs, other federal programs are designed to meet the nutritional needs of some special populations, including infants, children, pregnant women, and the elderly. For example, nutritional needs of infants on the four reservations are addressed by the Special Supplemental Food Program for Women, Infants, and Children.

WIC offers monthly food supplements to participants meeting both income and nutritional need criteria. Eligible recipients include pregnant and breast-feeding women, infants, and children up to age 5. States and tribes set household eligibility income limits based on federal criteria. Under the criteria, household income may be no higher than 185 percent of the poverty level. Additionally, participants must be medically determined to be at nutritional risk on the bases of their nutritional and health status. Participants receive vouchers for specific nutritional foods that may be redeemed at participating retail stores. During our visits, everyone who had applied and was eligible for the WIC program at the four reservations received benefits.

The Commodity Supplemental Food Program is the precursor to the WIC program. The CSFP offers monthly food packages to low-income mothers, infants, and children under age 6. However, nutritional risk is not a factor under this program. Benefits provided are USDA commodities. Pine Ridge is the only reservation of the four that uses CSFP in addition to WIC. Indian participation in WIC and CSFP at the four reservations is shown in table III.1.

**Appendix III  
Nutritional Adequacy of Benefits Provided by  
Primary Food Assistance Programs**

**Table III.1: Participation in WIC and CSFP  
During December 1988**

| Reservation   | Number |      | Percent <sup>a</sup> |      |                     |
|---------------|--------|------|----------------------|------|---------------------|
|               | WIC    | CSFP | WIC                  | CSFP | Total<br>WIC + CSFP |
| Fort Berthold | 462    | 0    | 17                   | 0    | 17                  |
| Navajo        | 15,211 | 0    | 8                    | 0    | 8                   |
| Pine Ridge    | 879    | 948  | 4                    | 5    | 9                   |
| White Earth   | 393    | 0    | 9                    | 0    | 9                   |

<sup>a</sup>These percentages show the relative participation in the programs of the total resident Indian population, rather than the potentially eligible population that in the WIC program, for example, does not include males over the age of five. The total resident Indian population for the four reservations was 2,663 for Fort Berthold; 185,661 for Navajo; 20,206 for Pine Ridge; and 4,268 for White Earth (Bureau of Indian Affairs estimates, Jan. 1989.)

**Special Nutritional Needs  
of the Elderly**

HHS' Administration on Aging sponsors programs to address the nutritional needs of the elderly on the four reservations. The programs provide persons aged 60 and over with a hot lunch at congregate feeding sites 3 to 5 days a week. They also provide transportation for those who need it as well as provide delivery of meals to those persons unable to leave their homes. However, due to limited federal and tribal funding, special services are provided to a small percentage of the Indian populations on the four reservations.

**Post-Delivery  
Nutrition-Related  
Factors**

During our review, we identified some post-delivery factors that could affect the nutritional benefits of the primary food assistance programs. For example, traditional Indian cooking methods, food preparation, and lack of refrigeration may have an adverse effect on the nutritional value of food obtained from the primary food assistance programs. A popular Indian cooking method involves frying with either lard, shortening, or butter. For example, at White Earth frying macaroni is a common practice and "fry bread" is usually eaten in Indian households at the four reservations. The most popular traditional Native American foods eaten in the Indian homes are fry bread, Indian tacos, and Indian soup. These foods are usually cooked with grease, fat, and salt and thus have high fat and sodium contents.

In addition, the effectiveness of food stamps and food packages to improve the nutritional status of reservation households is, in part, dependent on the ability of recipient households to adequately store and prevent spoilage of the foods provided by the programs. For example, butter, cheese, and opened canned items require refrigeration to prevent spoilage. A recipient told us that cheese, butter, and other perishable

food items were stored in shaded and cooled areas within his home because he did not have a refrigerator. According to a Pine Ridge FDIPIR official, some food package recipients are in need of dry storage containers for items such as flour and rice to prevent bug and insect infestation.

Many reservation households do not have refrigeration. Approximately 15 percent of the households eligible for FDIPIR on Fort Berthold do not have electricity or adequate storage (particularly refrigeration) facilities. According to a 1988 Navajo food preference survey of Navajo food package recipients, 37 percent do not own a refrigerator. According to an IHS nutritionist, approximately 15 percent of the homes on the Pine Ridge Reservation do not have adequate cooking facilities or refrigeration. In contrast, most of the food package recipients on the White Earth Reservation had working refrigerators, according to tribal officials.

## Nutrition Education

Nutrition education is a component of both the Food Stamp Program and FDIPIR. The Food Stamp Act of 1977, section 11(f), as amended, authorizes USDA to extend food and nutrition education to food stamp program participants. The act states that single-concept printed material, especially designed for persons with low reading and comprehension levels, should be developed on how to buy and prepare more nutritious and economical meals and on the relationship between food and good health.

Nutrition education is also an integral part of FDIPIR. FNS regulations stipulate that state agencies administering FDIPIR provide nutrition education to participating households. The objectives of this education are to publicize how USDA commodities may be used to contribute to a nutritious diet and to provide guidance on how to store them. This information can be conveyed by visual displays, cooking demonstrations, illustrated recipes, and printed materials. In commenting on this report, USDA noted that it has improved the nutrition education services provided by the National Agriculture Library's Food and Nutrition Information Center, developed an interagency agreement with the Indian Health Service, and published a resource guide. (See app. IX.) Other nutrition education related accomplishments and activities are listed in table IX.1.

According to IHS officials, the available food package contents can be made into nutritious meals if participants receive the proper nutrition education. With nutrition education, FDIPIR foods can be used to prepare meals that are appropriate for participants with diabetes, hypertension, or other diet-related conditions. For food stamp participants, nutrition

education can help recipients make more knowledgeable, economic, and nutritious decisions about their food purchases.

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## Nutrition Education Activities on the Four Reservations

According to IHS and tribal nutritionists, adequate nutrition education can enable Indians, including those with diet-related diseases, to use food package items to prepare nutritious meals. Nutrition education can help food stamp recipients make knowledgeable decisions about purchasing foods according to nutrient value and cost. We found that the amount and type of nutrition-related education provided on the four Indian reservations varied. The following sources of nutrition education activities were identified on the four reservations:

- At the Navajo Reservation, nutrition education is provided primarily by six FDPIR nutrition education specialists.
- At the Fort Berthold Reservation, nutrition education is provided primarily through the services of a tribal nutritionist, tribal community health representative, and the home extension service's home economist.
- At the Pine Ridge Reservation, nutrition education is provided primarily through the services of the IHS nutritionist and the tribal community health representative.
- At the White Earth Reservation, nutrition education is provided primarily by the IHS nutritionist.

These people provide one or more of a variety of nutrition-related education activities for reservation residents, including cooking demonstrations, nutrition lectures on various subjects, such as diabetes and obesity, and one-on-one nutrition counseling when requested by IHS. Although nutrition education is often available at tailgate sites and warehouses on the reservations, the extent of these activities varies from reservation to reservation and from one month to the next. For example, monthly nutrition lectures and cooking demonstrations are conducted at each of the Navajo Reservation's tailgate delivery sites. Nutrition education at the Navajo satellite warehouses is limited because of insufficient space. At the White Earth Reservation, nutrition education activities, including cooking demonstrations and lectures, are conducted monthly at the reservation's distribution warehouse and before elderly or other specialized groups. Nutrition education at the Fort Berthold Reservation is provided by the tribal nutritionist, who is primarily involved with the WIC program. She provides visual presentations and counseling to the recipients of other federal food assistance programs on the reservation when possible. Nutrition education at the Pine Ridge Reservation was limited to the dissemination of written literature



because the reservation's IHS nutritionist position was temporarily vacant.

According to an FNS official, if households received infant formula from CSFP instead of from WIC, they would not receive the benefit of WIC's extensive nutrition education.

According to Food Stamp Program officials, nutrition education activities of local food stamp offices consist primarily of making nutrition brochures and other literature available to food stamp recipients. However, because most recipients receive food stamps at their residence, they are not exposed to the nutrition education literature except when applying or reapplying for food stamps. Moreover, according to IHS officials, nutrition education that is not accompanied by cooking demonstrations where participants actually taste the food that has been prepared is not likely to be effective. While food stamp recipients can obtain nutrition information through brochures, other assistance through such means as cooking demonstrations, lectures, and nutrition counseling are not available through the Food Stamp Program.

IHS and tribal nutritionists told us that nutrition education efforts on the four reservations should be expanded and tailored to the specific needs of reservation Indians. For example, they noted that even if FDPIR recipients observe cooking demonstrations and food stamp recipients receive written nutrition information, they are much less likely to act on it without the one-on-one assistance of an on-site educator. However, the limited number of nutrition educators, remote locations of households, and harsh traveling conditions on the four reservations do not permit frequent home visits or one-on-one counseling.

In its concluding comment on this section of the report, USDA noted that FNS is aware that more information is needed on the population served by FDPIR. In the fall of 1988, FNS contracted for a study to evaluate the program. According to USDA, descriptive information on FDPIR households and program operations will be obtained as part of the study. The study is expected to be completed by the summer of 1990. (See app. IX.)

# Overall Observations About Nutritional Needs on the Four Reservations

Federal food assistance programs, primarily the Food Stamp Program and FDPIR, along with nonfederal food assistance have contributed to the improved diet of Indian households on the four reservations. These programs provide participating Indian households with the opportunity for a nutritious food source. However, there are indications that some hunger exists on two of the four reservations we visited. A greater concern on each of the four reservations was the prevalence of diet-related diseases and the impact of federal food assistance programs on those diseases.

Many factors affect the quality of life of Indians residing on reservations. With continuing high unemployment, many families on the reservations will have to continue to depend on federal and nonfederal food assistance. Providing an adequate food supply and proper education that addresses the nutritional needs of the general reservation population, as well as those with diet-related diseases, could improve that quality of life.

## Hunger on the Reservations

A lack of specific information makes it difficult to quantify how effective both federal and nonfederal programs are in meeting the nutritional needs of low-income Indian populations. With unemployment rates reported to range from 50 to 79 percent on the four reservations and average family incomes, according to the 1980 Census (latest available data), ranging from about \$9,000 to \$11,000, the need for food assistance is great. Many reservation families are benefiting from this food assistance, although both program and tribal officials told us that some portion of the eligible population is not participating in available programs. Information needed to identify, quantify, or assess the extent of their nutritional needs is not available. Likewise, information on the extent of hunger on the four reservations is not easily determined.

However, there are indications that some hunger exists on two of the four reservations we visited. Officials at the Pine Ridge and Fort Berthold reservations told us that they believe some food assistance participants periodically run out of food. There also appears to be a growing demand for nonfederal food assistance. In Arizona, for example, nonfederal food providers serving the Navajo Reservation have reported that the need for food assistance has increased in recent years at a rate that exceeds their capacity to fill the demand for food and other needs on the reservation. Recently, an existing food bank began serving the Pine Ridge Reservation. A number of possible factors could help to account for this current demand. Some factors relate to perceptions or

barriers in getting federal assistance; others relate to the design of the programs; and still others relate to how recipients manage their once-a-month food supply.

Reasons given for some eligible people not participating in the food assistance programs on the reservations are similar to reasons given nationwide by the general population. These reasons include pride and perceived ineligibility.

For those reservation families who participate in the two primary federal food assistance programs, some may run out of food because, like any broad-based program, benefits are often designed to address the average target population, often on a national scale. Some participants do not fit into those average categories. Both the Food Stamp Program and FDIIR appear to be designed to provide an adequate nutritional food source for the average population. Factors used in determining the basis of the food stamp and FDIIR benefits, such as food prices and energy consumption requirements that are higher than the national averages, could result in food shortages at the end of the month for some reservation families.

In other instances, families may not have either the skill or the inclination to successfully plan the allocation of a full month's supply of food over the entire month. We were not able to quantify the extent to which these or other factors might have caused hunger to occur or the extent to which hunger may exist on the reservations.

In commenting on the report, USDA noted that there are many reasons recipients may run out of food before the end of the month. USDA noted, for example, that FDIIR recipients have the option to refuse foods they do not intend to eat. Also, for all food groups, the number of servings issued is less than the number of servings offered. Recipients may decide not to take unfamiliar foods or foods they do not know how to prepare, and therefore they do not receive the full package, according to USDA. (See app. IX.)

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## Major Diet-Related Concerns on the Reservations

Diabetes, obesity, heart disease, and hypertension are prevalent diet-related health conditions on each of the four reservations we visited. Although proper nutrition may not cure these conditions, it can be a major factor in their prevention and control. All of these conditions are exacerbated by a diet too high in fat. A diet containing excessive amounts of sodium is also a risk factor for hypertension.

Since obesity, which is primarily caused by an excessive intake of calories and a lack of exercise, is a major contributing factor to the other three conditions, reducing obesity is essential to controlling them. Reducing the prevalence of obesity on the reservations depends on Indians having food available that is low in fat and on changing certain aspects of their lifestyles, such as choosing food low in fat, preparing these foods in a nutritious manner, and increasing exercise. The Surgeon General has recommended these lifestyle changes to all Americans.

Federal food assistance programs provide much of the food for Indians on the reservations we visited. Although these programs are designed to provide the nutritional needs of the normal, healthy Indian population, limitations on the availability of some food items, and the fat and sodium content of many available food items, create the need for expanding nutrition education and convincing the Indian population with nutrition-related health problems to adopt the food preparation and consumption patterns that will benefit them. Unless improvements are made to the FDIIR food packages and unless adequate nutrition education is provided for both FDIIR and Food Stamp Program recipients that responds to their needs as previously discussed, the prevalence of obesity, diabetes, heart disease, and hypertension is likely to continue.

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### **Long-Term Dependence on Food Assistance Related to High Unemployment Rates**

Although many factors influence the quality of life on reservations, such as religious and social beliefs, traditional life styles and habits, and personal likes and dislikes, one of the more important factors has to do with the unemployment rate. It will be difficult to improve the quality of life on the reservations and reduce the need for substantial federal food assistance as long as unemployment rates remain high. The unemployment rate at the four reservations we visited ranged from 50 percent at the Navajo Reservation to 79 percent at the Fort Berthold Reservation. Not surprisingly, the rates of participation in the two primary food assistance programs at these two reservations were the lowest and the highest, 38 percent and 90 percent, respectively. The participation rate of 90 percent at the Fort Berthold Reservation was 33 to 52 percent higher than the other three reservations, and Fort Berthold is the only reservation without nonfederal food assistance efforts on the reservation.

# List of Tribal and Agency Sites Visited

| Site  | Location                                       |
|---|--|
| <b>Tribal governments</b>                                   |  |
| Three Affiliated Tribes                                     | New Town, North Dakota                         |
| Oglala Sioux  | Pine Ridge, South Dakota                       |
| Chippewa  | White Earth, Minnesota                         |
| Navajo  | Window Rock, Arizona                           |
| <b>Food and Nutrition Service, USDA</b>                     |  |
| Headquarters  | Alexandria, Virginia                           |
| Midwest Regional Office                                     | Chicago, Illinois                              |
| Mountain Plains Regional Office                             | Denver, Colorado                               |
| Western Regional Office                                     | San Francisco, California and Phoenix, Arizona |
| <b>Indian Health Service, PHS, HHS</b>                      |  |
| Headquarters  | Rockville, Maryland                            |
| Aberdeen Area Office  | Aberdeen, South Dakota                         |
| Navajo Area Office  | Saint Michaels, Arizona                        |
| Hospital  | Pine Ridge, South Dakota                       |
| Hospital  | Rapid City, South Dakota                       |
| Hospital  | Fort Defiance, Arizona                         |
| Minne Tohe Health Center                                    | New Town, North Dakota                         |
| Health Center   | White Earth, Minnesota                         |
| Diabetes Control Program                                    | Albuquerque, New Mexico                        |
| Nutrition and Dietetics Training Program                    | Santa Fe, New Mexico                           |
| <b>Bureau of Indian Affairs, Department of the Interior</b> |  |
| Central Office  | Washington, D.C.                               |
| Area Office   | Aberdeen, South Dakota                         |
| Navajo Area Office  | Window Rock, Arizona, and Gallup, New Mexico   |
| Fort Berthold Agency  | New Town, North Dakota                         |
| Pine Ridge Agency   | Pine Ridge, South Dakota                       |
| Minnesota Agency  | Cass Lake, Minnesota                           |
| <b>Administration on Aging, HHS</b>                         |  |
| Headquarters  | Washington, D.C.                               |
| Region VIII Regional Office                                 | Denver, Colorado                               |
| <b>Expanded Food and Nutrition Education Programs, USDA</b> |  |
| Fort Berthold Extension Office                              | New Town, North Dakota                         |
| <b>Bureau of the Census</b>                                 |  |
| Regional Census Center                                      | Lakewood, Colorado                             |
| <b>Non-governmental food providers</b>                      |  |
| Roadrunner Food Bank  | Albuquerque, New Mexico                        |

(continued)

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**Appendix V**  
**List of Tribal and Agency Sites Visited**

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| <b>Site</b>  | <b>Location</b>          |
|--|--------------------------|
| Echo Food Bank   | Farmington, New Mexico   |
| Food Bank, Feed the Children Program, the American Indian Relief Council | Pine Ridge, South Dakota |
| Helping Hand Food Shelf  | Mahnomen, Minnesota      |

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# Food Stamp Benefit Calculation

| Criteria  | Calculation        |
|---|--------------------|
| <b>Household characteristics</b>  |                    |
| A 4-person household, living in one of the 48 states or the District of Columbia. |                    |
| <b>Eligibility calculations</b>   |                    |
| Income  |                    |
| Earned income   | \$500              |
| Less 20 percent deduction   | -100               |
|   | 400                |
| Add unearned income   | +350               |
| Gross income  | \$750              |
| Less standard deduction   | -106               |
|   | 644                |
| Less dependent-care costs   | -125               |
| Adjusted income   | \$519              |
| Shelter   |                    |
| Rent  | \$120              |
| Utilities   | +257               |
| Shelter expense   | 377                |
| Minus half of adjusted income   | -260               |
| Excess shelter costs <sup>c</sup>   | \$117              |
|   | \$519              |
|   | -117               |
| Net income <sup>d</sup>   | \$402 <sup>e</sup> |
| <b>Benefit calculations</b>   |                    |
| 4-person TFP cost   | \$300              |
| Less 30% of net income  | -121               |
| Monthly benefit amount  | \$179              |

<sup>a</sup>This gross income amount is used to test eligibility.

<sup>b</sup>Subject to a \$160 a month ceiling per child.

<sup>c</sup>If shelter costs are more than half of adjusted income, household may qualify for excess shelter deduction.

<sup>d</sup>To determine net income, subtract excess shelter costs (not to exceed \$170) from the adjusted income.

<sup>e</sup>This net income amount is used to test eligibility.

# Listing of Available FDPIR Food Commodities Authorized by FNS

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## Vegetable/fruit group

Potatoes—dehydrated  
flakes, whole  
Sweet potatoes  
Tomatoes  
Tomato sauce  
Applesauce  
Apricots  
Fruit cocktail  
Peaches  
Pears  
Pineapples  
Plums  
Prunes  
Raisins  
Apple juice  
Grape juice  
Grapefruit juice  
Orange juice  
Pineapple juice  
Tomato juice  
Green peas  
Green beans  
Carrots  
Corn-cream, kernel  
Spinach  
Vegetarian beans

## Grain group

Rice  
Oats  
Cornmeal  
Spaghetti  
Macaroni  
Farina  
Cereal—corn, oats, rice, wheat  
Flour—whole wheat, all purpose, bread

## Meat group

Beef  
Meatball stew  
Luncheon meat  
Pork  
Chicken  
Salmon  
Tuna  
Turkey  
Pinto beans  
Lima beans  
Navy peabeans  
Cowpeas/blackeye peas  
Great northern beans  
Red kidney beans  
Egg mix  
Peanut butter—smooth,  
chunky  
Roasted peanuts

## Dairy group

Processed cheese  
Evaporated milk  
Dry milk

## Other

Shortening  
Vegetable oil  
Butter  
Honey

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# Indian Reservation Profile

| Description   | Fort Berthold              | Navajo   | Pine Ridge                  | White Earth                      |
|---|----------------------------|--|-----------------------------|----------------------------------|
| Indian tribe  | Mandan, Hidatsa, Arikara   | Navajo   | Oglala Sioux                | Chippewa                         |
| Location  | North Dakota               | Arizona, Utah, New Mexico                          | South Dakota                | Minnesota                        |
| Reservation acres   | 468,000                    | 17,202,118   | 2,786,540                   | 835,200                          |
| Counties serving reservations   | 6                          | 6  | 3                           | 3                                |
| Total resident Indian population  | 2,663                      | 185,661  | 20,206                      | 4,268                            |
| Age of population   |                            |  |                             |                                  |
| Under 16  | 915                        | 50,764   | 7,320                       | 1,522                            |
| 16-64   | 1,609                      | 123,992  | 11,906                      | 2,401                            |
| Over 65   | 139                        | 10,905   | 980                         | 345                              |
| Unemployment rate (percent)   | 79                         | 50   | 73                          | 73                               |
| Annual income level   |                            |  |                             |                                  |
| 1980 per capita   | \$2,730                    | \$2,414  | \$2,209                     | \$2,803                          |
| Family  | \$11,045                   | \$9,029  | \$9,435                     | \$10,382                         |
| Types of major employment on reservations   | Government, tribal, retail | Services, community, utilities, transport., retail | Schools, government, retail | Tribal, retail, farming, logging |
| Principal food stores on reservations   | 3                          | 21   | 1                           | 5                                |
| Distance between main food distribution warehouse & farthest delivery point on reservations | 100 miles                  | 240 miles  | 105 miles                   | 45 miles                         |
| Participants in food stamps & FDPIR   | 2,396                      | 70,520   | 9,349                       | 2,414                            |
| Transportation system   | No                         | Yes  | No                          | No                               |
| Commodity program operated by   | State                      | Tribe  | State                       | Tribe                            |
| WIC program operated by   | Tribe                      | Tribe  | State                       | Tribe                            |
| Major diet-related health problems  |                            |  |                             |                                  |
| Obesity   | Yes                        | Yes  | Yes                         | Yes                              |
| Diabetes  | Yes                        | Yes  | Yes                         | Yes                              |
| Heart disease   | Yes                        | Yes  | Yes                         | Yes                              |
| Hypertension  | Yes                        | Yes  | Yes                         | Yes                              |

# Comments From the Department of Agriculture

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



United States  
Department of  
Agriculture

Food and  
Nutrition  
Service

3101 Park Center Drive  
Alexandria, VA 22302

July 28, 1989

Mr. John W. Harman  
Director  
Food and Agriculture Issues  
Resources, Commodity and Economic  
Development Division  
General Accounting Office

Dear Mr. Harman:

Thank you for the opportunity to review and comment upon your draft report entitled Food Assistance Programs: Nutritional Adequacy of Food Assistance Programs on Four Indian Reservations (GAO/RCED-89-177).

We appreciate your efforts to determine the sufficiency of our food assistance programs in meeting the needs of the Indian population. To further pursue that goal, the Food and Nutrition Service recently contracted with a research firm to conduct a comprehensive evaluation of the Food Distribution Program on Indian Reservations (FDPIR). It is anticipated that the national evaluation will include a sample of 30 separate FDPIR Programs and over 800 households. The evaluation will provide descriptive information about FDPIR households and program operations. The five major objectives are to:

- o Describe the socioeconomic and demographic characteristics of participating households.
- o Identify dietary preferences of low-income Indians and examine the ways in which FDPIR addresses them.
- o Provide a preliminary comparison of the availability and acceptability of FDPIR and the Food Stamp Program to Indian households.
- o Describe the State agency's or Indian Tribal Organization's administration of the program in terms of typical program practices and procedures and estimated costs.
- o Describe program practices and procedures that are associated with administrative cost containment and error prevention/reduction.

The evaluation will include a review of the scientific literature on the nutritional status of Indians as well as the incidence of nutritionally related diseases in the population.

We anticipate the implementation of data collection this November and the distribution of the final report by the summer of 1990. The study findings

See comment 1.

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Comments From the Department  
of Agriculture


Mr. John W. Harman

2

will be used by FNS to make the program more responsive to the nutritional needs of the low-income households on Indian reservations and to improve the efficiency and effectiveness of program operations.

The enclosed pages contain our specific comments to your draft report. Thank you for the opportunity to respond.

Sincerely,

*for*   
G. SCOTT DUNN  
Acting Administrator

Enclosures

Appendix IX  
Comments From the Department  
of Agriculture

FOOD AND NUTRITION SERVICE RESPONSE TO  
GAO DRAFT REPORT RCED-89-177, DATED JUNE 22, 1989, ENTITLED  
"FOOD ASSISTANCE PROGRAMS: NUTRITIONAL ADEQUACY OF FOOD  
ASSISTANCE PROGRAMS ON FOUR INDIAN RESERVATIONS"

General Comments

The report makes evident the fact that there is very little data available on the nutritional adequacy of Federal food assistance on Indian Reservations. For various reasons, each reservation has different nutritional needs. As is mentioned in the report, some tribal officials perceive that the food package is adequate, and some perceive that it is not. In order to better serve needy people on Indian Reservations, the Food and Nutrition Service is in the process of conducting a comprehensive survey of participating households and the program operation of the FDPIR. It is expected that the survey will disclose important information about the recipient households' needs, as well as identify procedures that are associated with cost containment and error prevention.

See comment 2.

Also, readers should be aware that although the main focus of the report is on the Food Distribution Program on Indian Reservations and the Food Stamp Program, other FNS programs are important to the overall food assistance provided to low-income households on Indian reservations. The WIC Program and the Commodity Supplemental Food Program are designed to meet the special needs of pregnant women, infants, and young children. Many children in low-income households receive additional free or reduced-price meals through the National School Lunch and Breakfast Programs, the Child Care Food Program, and the Summer Food Service Program. The Nutrition Program for the Elderly provides supplementary food assistance to elderly people and their spouses. These important FNS programs that meet the special nutritional needs of specific age groups do much to complement the benefits provided by the FDPIR and the Food Stamp Program.

See comment 3.

GAO Report

Page 6, Paragraph 1, lines 5 and 6 - Some tribal officials said that FDPIR food packages are adequate. Other tribal officials said that some recipients run out of food before the end of the month.

Now on p. 4.

On pages 46 through 51 of the report, this comment is further developed. Tribal officials commented that the food package's contents should be increased and more choices added for variety. Specifically, fresh fruits and vegetables were mentioned.

Now on pp. 36-40.

Response

The food package offers a variety of food items from the basic four food groups, fats, and sweets. The number of servings offered in the package has been compared to the midpoint of a food wheel developed by the American Red Cross, in cooperation with the U.S. Department of Agriculture. Data showed that the package offered provides an adequate number of servings of breads and cereals, meats and meat alternates, cheese and milk, and fats and

See comment 4.

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Comments From the Department  
of Agriculture

sweets. Only servings of fruits and vegetables fall short of the midpoint for recommended servings.

See comment 5.

Fresh fruits and vegetables have not been offered in the program because of a lack of adequate refrigeration during transportation and inadequate refrigerated facilities at the State and local warehouses. Data also have shown that some recipients do not have access to an operating refrigerator in their homes. Since shelf life for fresh fruits and vegetables is short, spoilage and wastage would be high. There is, however, a variety of canned vegetables and fruits available throughout the year.

See comment 6.

There are many reasons why some recipients may run out of food before the end of the month. Recipients in the FDPiR have the option to refuse foods they do not intend to eat. For all food groups, the number of servings issued is less than the number of servings offered. Recipients may decide not to take unfamiliar foods or foods that they do not know how to prepare, and therefore not receive the full package. Data also show that the local FDPiR staff does not always order a variety of foods when choices are available. The staff's ordering pattern may reflect the recipients' pattern of declining food items. In recent years, nutrition education materials have been developed in an effort to promote the utilization of the full variety of foods currently available through FDPiR.

Now on p. 4.

GAO Report

Page 6, Paragraph 2, lines 2 through 10 - Although about 60 different food items are authorized for FDPiR distribution, not all of the items are consistently available for selection by the recipients of food packages....The occasional absence of some FDPiR food items may also reduce the overall nutritional value of the food packages.

Now on pp. 36-37.

This comment is further developed on pages 40 and 48.

Response

See comment 7.

FNS balances legislative requirements with agricultural market information, available funds and recipient commodity preferences to draw up an annual commodity purchase plan. The plan is designed to make sure that USDA provides an adequate level of commodity support as required by law. The commodity purchase plan can be modified throughout the year, primarily because of changing market conditions.

GAO identified several additional factors which limit the variety of foods available at specific reservations for specific months, including the ordering pattern by the FDPiR staff, price fluctuations, and storage space limitations at the State and reservation level. However, if a food item is not available, there is in most cases an alternative commodity of equal nutritional makeup that is from the same food group available for distribution.

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Now on p. 4.

GAO Report

Page 6, paragraph 2, line 10 - Although USDA improved the nutritional content of the FDIIR food package in 1986, tribal and U.S. Department of Health and Human Services' (HHS) Indian Health Service (IHS) officials believe that the fat and sodium content of many of the available food items should be reduced further.

Now on pp. 39-40.

On pages 53, 54 and 65 of the report, this comment is further developed. The fat content of meats, i.e. pork, beef, and meatball stew, and butter and cheese and sodium content of meats, especially luncheon meat, and vegetables are discussed. The Navajo Nation, one of the Tribes interviewed, recommended the elimination of luncheon meat.

Response

The fat content of canned beef and pork could be slightly reduced by specifying that only lower fat cuts of meat be used. However, the cost would increase significantly. While the palatability of beef and pork would not be adversely affected by reduced fat, the meatballs in the beef stew would become tough. The current ingredients used in the canned meats is based on the industry standard. This ensures that there will be a sufficient number of bidders, as well as economical prices. Reducing the fat content further would necessitate buying them as a special purchase, which would result in fewer bidders and higher prices.

See comment 8.

Reducing the salt level in canned meats to that of fresh meat would result in an unpalatable product. Consumer research has shown that in many instances, this would lead to salt being added at the table. The same is true for vegetables - salt would be added by the cook. Canned meats and vegetables with no added salt would also require special purchases, again resulting in fewer bidders and higher costs.

Members of the 1985 FNS Task Force visited several reservations. During their visits, many recipients requested that luncheon meat be restored to the food package. After considering recipient preferences and requests to increase the variety of food offered, the task force recommended that luncheon meat again be added to the food package. In early 1986 luncheon meat, as a special purchase with less fat and sodium than a similar product discontinued in 1976, was restored to the food package.

Luncheon meat is one of the few convenience foods in the package. It requires little preparation and no special storage conditions.

GAO Report

Now on p. 5.

Page 6, paragraph 3, lines 2 and 3 - IHS and tribal officials cited diabetes, heart disease, obesity, and hypertension as major diet - related health conditions on the four reservations. Although proper nutrition may not cure these conditions, it may reduce their complications or help prevent their occurrence.

Now on pp. 40-43.

This comment is further developed on pages 53 through 56.

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Response

FNS has had direct communication with the tribes and ongoing consultation with the Indian Health Service in all efforts to improve the program. This close coordination has helped to identify and better target efforts to meet the needs of program recipients.

The 1985 FNS task force made several recommendations for improving the food package after considering the health status of the Indian population. FNS incorporated a majority of the recommendations relating to the food package. Those changes included:

- o reducing fat and sugar levels;
- o adding new foods to reflect nutritional needs and food preferences (ready-to-eat cereal, vegetable oil, tomato sauce and luncheon meat);
- o increasing the quantities of several popular foods; and
- o deleting several unpopular foods.

FNS has made a concerted effort to provide a food package that accommodates the special needs of Indians and has considered:

- a) **the problem of excessive caloric levels which may be associated with obesity, diabetes, and heart diseases.** The package has decreased levels of calories resulting from decreased levels of fat and sweeteners.
- b) **the levels of salt and fat, which at excessive levels are associated with hypertension and arterial conditions.** FNS reviews products for inclusion in the food package and is committed to maintaining an appropriate level of sodium in the package. When luncheon meat was added back to the package after several years of absence, the fat and sodium levels were reduced. With the addition of vegetable oil as a choice, the package also offers less saturated fat as recommended by the Dietary Guidelines for Americans; and
- c) **added sugar which is associated with tooth decay.** Quantities of sweetening agents have been reduced. Currently, all fruits are canned in fruit juice or light syrup.

To date, as new foods are added to the package, the sodium, fat and sugar contents have been evaluated and reduced when practical and economically feasible. Examples include the luncheon meat and ready-to-eat breakfast cereals which have restricted sugar and sodium levels to bring them into alignment with regulatory requirements for WIC cereals.

FNS believes that an improved food package, coupled with a basic understanding of menu planning and food preparation skills, would enable FDPIR recipients to achieve a diet that has variety, balance and promotes

See comment 9.

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good health. However, we agree with GAO's conclusion that much can be accomplished provided recipients receive and apply adequate nutrition education.

GAO Report

See comment 5.

Page 7, paragraph 3, line 1 - One way to attain proper nutrition is by improving food purchasing and preparation practices and eating habits, which can be encouraged through nutrition education. Providing nutrition literature and employing nutritionists in conjunction with the food assistance programs can help to educate program recipients by demonstrating how to purchase and prepare more nutritious food, how to make their food supplies last longer, and how to address special health needs.

Now on pp. 45-48.

This comment was further developed on pages 59 through 62.

Response

The program regulations published in 1979 contain a requirement for nutrition education. The regulations require that State agencies publicize how commodities may contribute to a nutritious diet and how they should be stored. The regulations also encourage State agencies to work with other organizations to provide nutrition and food information. In addition, State agencies may use administrative funds and may order supplementary commodities from the food package to use in nutrition education demonstrations.

The 1985 FNS Task Force noted that reservations participating in FDPIR had limited access to nutrition education resources. The Task Force recommended improving the delivery of nutrition education to FDPIR recipients through the development and sharing of nutrition education materials and activities using existing resources more efficiently. Many of the recommendations have already been implemented.

See comment 10.

Activities have included improved nutrition education services to FDPIR cooperators from the National Agriculture Library's Food and Nutrition Information Center, the development of an interagency agreement with the Indian Health Service, and the publication of a resource guide. Table 1 shows a complete list of accomplishments and upcoming activities. All of the materials developed to date have been distributed to the appropriate users and feedback has been very favorable.

Data collected by the 1985 FNS task force also suggested that recipients needed nutrition education materials on uses, methods of preparation, and recipes for foods that are not frequently issued. Currently, a recipe book specifically for FDPIR recipients is being developed that will address many of these needs.

In addition, FNS has developed several fact sheets which provide information on storage, preparation, food safety, and nutrition information. They also contain several recipes.



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FNS believes that nutrition education materials developed at the Federal and local level can enhance the overall use of foods items provided by FDPIR in preparing more nutritious foods. These materials can play an important role in ensuring that households obtain maximum nutrient values from the package offered.

FNS has completed a Make Your Food Dollars Count project composed of multimedia print and audio visual materials for recipients of the Food Stamp Program. One particular component consists of two sets of four pamphlets. One set presents eight single topic messages. Topics include nutrition, selecting nutritious snacks, approaches to meal planning and shopping strategies, buying meats, comparing product brands, choosing convenience foods, and using unit pricing and food labels.

In the second set, three pamphlets give tips on how to buy, store and prepare fruits, vegetables and legumes. Recipes are included. A fourth pamphlet gives ways to find sugar, fat and sodium in foods and suggests how to use less of each in the diet. These materials are available to all participating in the Food Stamp Program. All Indians who alternate between FSP and FDPIR have access to these materials.

FNS believes that these program publications will expand nutrition activities on the reservations and provide cooperators with adequate resources to tailor guidance that is appropriate for a specific tribal population.

The Food and Nutrition Service is aware that more information is needed on the population served by the FDPIR. In the fall of 1988, FNS contracted out a study to evaluate the program. The contractor will obtain descriptive information on FDPIR households and program operations. The study is expected to be completed by summer 1990.

See comment 11.

GAO Report

Now on p. 48.

Page 64, Paragraph 2, lines 1 through 5 - However, there are indications that some hunger exists on two of the four reservations we visited. Officials at the Pine Ridge and Fort Berthold Reservations told us that they believe some food assistance participants periodically run out of food. There also appears to be a growing demand for nonfederal food assistance.

Now on pp. 6 and 27.

This comment is also developed on pages 6 and 50.

Response

See comment 12.

No sound data is given to support the claim that hunger exists on the reservations in the survey. The "indications of hunger" on two of the reservations are perceptions by program officials. They may be valid, however, no supporting information was provided. In order to support the claim that hunger exists on the reservations, it would be necessary to collect detailed data on food intake and eating patterns as well as on weight, height and other personal characteristics.

Appendix IX  
 Comments From the Department  
 of Agriculture

Table 1

SUMMARY OF NUTRITION EDUCATION ACTIVITIES IMPLEMENTING 1986 FDPIR  
 TASK FORCE'S RECOMMENDATIONS

| ACTIVITY  | DESCRIPTION/PURPOSE  |
|---|--|
| 1a.) Expanded FY 1988 Interagency Agreement with Food and Nutrition Information Center to include FDPIR | To help improve nutrition education services to FDPIR cooperators by increasing lending and reference services from the National Agricultural Library. 8/87  |
| b) Developed Pathfinders  | Two short annotated bibliographies of selected current references on cultural and health topics about American Indians and Alaska Natives. To help cooperators quickly locate information on topics appropriate for in-service training. 5/88  |
| c) Developed and distributed Directory of FDPIR Nutrition Education Contacts                            | We asked Regional, State and local offices to identify nutrition education contacts. These contacts will receive regular informational mailings from FNIC and other materials as they are developed. This Network will also strengthen and facilitate communications and sharing of materials and ideas for nutrition education. 11/87 |
| 2. Developed IHS/FNS Memorandum of Agreement for Nutrition Education Technical Assistance               | To foster cooperative efforts between IHS and FNS in providing nutrition education to American Indians and Alaska Natives participating in FDPIR and WIC. 8/87   |
| 3a.) Developed Nutrition Education Resource Guide   | An extensive bibliography of nutrition education resources written by and for American Indians and Alaska Natives. To promote the sharing of materials among various groups working with FDPIR participants. 3/88  |
| b) Develop FDPIR Nutrition Education Exhibit  | A resource to help publicize FNS's FDPIR program specific nutrition education at workshops and conferences. 12/87  |
| c) Commodity Recipe Book  | A collection of commodity recipes that are culturally appropriate and easily followed. To promote better utilization of foods available through FDPIR. 12/89   |
| d) Develop Commodity Fact Sheets  | FY 1989 and 1990 Starts  |
| e) Develop Training Manual  | " "  |
| f) Revise Commodity labels  | " "  |

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The following are GAO's comments on USDA's letter dated July 28, 1989.

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## GAO Comments

1. We have included this information on pages 6 and 47 of the report.
2. We have included this information on page 47 of the report.
3. We have included this information on page 16 of the report.
4. We have included this information on page 36 of the report.
5. We have included this information on page 37 of the report.
6. We have included this information on page 49 of the report.
7. We have included this information on page 40 of the report.
8. We have included this information on pages 41 and 42 of the report.
9. We have included this information on page 42 of the report.
10. We have included this information on page 45 of the report.
11. We have included this information on page 47 of the report.
12. As noted in the report, information regarding the possible occurrence of hunger on the reservations was attributed to the perceptions of tribal officials on the Pine Ridge and Fort Berthold reservations. Likewise, we also recognized in the report that information on the extent of hunger on the reservations is not easily determined.

# Comments From the Department of Health and Human Services

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of Inspector General

Washington, D.C. 20201

JUL 24 1993

Mr. John W. Harman  
Director, Food and  
Agriculture Issues  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Harman:

Enclosed are the Department's comments on your draft report, "Food Assistance Programs: Nutritional Adequacy of Food Assistance Programs on Four Indian Reservations." The enclosed comments represent the tentative position of the Department and are subject to reevaluation when the final version of this report is received.

The Department appreciates the opportunity to comment on this draft report before its publication.

Sincerely yours,

Richard P. Kusserow  
Inspector General

Enclosure

See comment 1.

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**Appendix X  
Comments From the Department of Health  
and Human Services**

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The following is GAO's comment on HHS' letter dated July 24, 1989.

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**GAO Comment**

1. HHS' attached comments addressed several technical aspects of this report. We did not include the attachment but have incorporated the comments in the report.

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# Major Contributors to This Report

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