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WIC Income Verification Study

Final Report

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SYNOPSIS

The WIC Income Verification (WIV) Study examined the incidence and magnitude of certification error by conducting independent in-home audits on a national sample of program participants in late 1988. The income-eligibility determination process was modeled for each State, and data from the in-home audit were compared to case-file-derived income and family-size data. Principal findings reveal a national WIC certification case error and dollar error rate, respectively, of 5.7 and 5.8 percent. This translates into $84 million spent on ineligibles out of a total of about $1.5 billion in FY88.[1] Participants had relatively low household incomes, but income misreporting was high—over 43 percent of participants underreported, while 22 percent overreported, their income. Almost all households enrolled in the program in 1988 had incomes at or below the allowable Federal threshold of 185 percent of poverty.

BACKGROUND AND OVERVIEW

To be eligible to participate in USDA's Special Supplemental Food Program for Women, Infants, and Children (WIC), applicants must meet three types of criteria: categorical, nutritional, and income. Applicants must also reside in the State or local area in which they are applying for benefits. Findings from this study focus on income eligibility and describe income certification procedures in effect and the extent and nature of certification error nationwide during the period covered by the study.[2]

In response to the concerns of the U.S. General Accounting Office (GAO) about the accuracy of income reported by WIC participants, the WIV Study began in 1986. The study consisted of two phases. The first phase focused on the analysis of case-file and other income data from existing national surveys and studies rather than a collection of new data. In Phase I, the contractor also collected data on current certification procedures from all State agencies via telephone interviews with WIC State directors and their staffs in the fall of 1986. Other Phase I activities included the design and development of a national survey to estimate the incidence and magnitude of income ineligibility.

In Phase II, in-depth income audits were conducted with WIC participants according to the survey design developed in Phase I. The audits were conducted at participants' homes, and the information was compared to case-file data obtained initially at certification (or recertification). The sample for Phase II audits was nationally representative and drawn exclusively from respondents to the Agency's 1988 study of WIC Participant and Program Characteristics (PC88). The income audits were conducted in the fall of 1988, and the final WIV sample consisted of 25 States, 41 local agencies, 72 clinics, and 1,076 participants.

STUDY FINDINGS

WIV Project Findings—Phase I (Fall 1986)

State Certification Procedures

- Self-declaration, whereby applicants self-report their income and family size to local staff without providing documentation, was the primary method in 46 percent of all (geographic, Indian, and territorial) WIC State agencies.[3]

- In 25 percent of all State agencies, documentation of income was required at certification. An applicant who failed to provide income documentation could not be certified for program participation. In the remaining State agencies, some variation of self-declaration (16 percent) or a weaker form of documentation (13 percent) was asked for, but not required, at certification.

- Analysis of certification procedures of the 51 *geographic* State agencies (which serve the majority of WIC enrollees) revealed that in 37 percent of these agencies, the primary certification procedure was to require applicants to submit income and household documentation.

- In the *geographic* State agencies, requiring documentation at certification was followed by local variation (27 percent). Under this procedure local agencies have the option to use more rigorous verification procedures. Lastly, statewide self-declaration (20 percent) and documentation-requested procedures (16 percent) were utilized, but to a lesser degree.

- In *Indian* State agencies, self-declaration (85 percent) was the primary procedure used to establish income and family size.[3]

WIV Project Findings—Phase II (Fall 1988)

In-Home Audit Survey Characteristics

- Data were obtained from participants in 25 State agencies, 41 local agencies, and 72 clinics.

- Ninety-six percent of all PC88 participants agreed to participate in the WIV Study, and over 85 percent of these participants completed the in-home audit (n=884).

State Certification Procedures: Economic Unit Determination

- Examination of State policies and procedures in light of Federal regulations governing the determination of the applicant's economic unit (i.e., household or family size) indicated significant State-to-State variation. These definitional variations affect the basic terms necessary to correctly certify an applicant as eligible to receive WIC benefits. For example, such terms as "family membership" and "sharing of income" differed from State to State.

- Further, State-to-State variance in certification of family size also existed with respect to more specialized definitional terms and rules regarding foster children, emancipated minors, institutionalized persons, individuals living apart from the family, length of family member absence, etc. All States had provisions for certifying some types of special cases. Comparisons between surveyed States revealed that the most common types of special-case categories addressed were foster child (92 percent), emancipated minor (64 percent), and student living apart from the family (60 percent).

- In most States surveyed (84 percent), presumptive eligibility in WIC certification was allowed. That is, documented participation in another Federal program with income limits at or below the State's WIC limits was accepted as evidence of income eligibility for WIC. The most common basis for presumptive eligibility used by States was Medicaid (64 percent), followed by Aid to Families with Dependent Children (48 percent), Food Stamps (40 percent), School Lunch Program (16 percent), and Supplemental Security Income (8 percent).

State Certification Procedures: Income Determination

- Unlike the State-to-State variation in defining the WIC economic unit or family, examination of State policies on countable income revealed complete or near complete agreement on 19 out of 23 common income sources, which, as a group, constitute 91.6 percent of all countable income.

- State definitions of countable income differed on four major income sources, namely, the treatment of housing subsidies, Black Lung benefits, loans, and student financial aid. However, these sources collectively accounted for only 4.2 percent of all income.

Income Characteristics of WIC Families

- WIC households are predominantly low income. That is, 60 percent of WIC households have verified income under 100 percent of poverty, and almost 95 percent have incomes at or below the allowable 185 percent Federal poverty income level.

- The median income of WIC households is 80 percent of the Federal poverty income level.

- Approximately 63 percent of all WIC households have income from salaries and wages. Wage and salary income is not only the most frequent source, but also the highest median monthly amount. Wage and salary income accounts for almost 75 percent of total WIC income.

- The only other major income source received by WIC households is AFDC (26 percent), which accounts for about 10 percent of total family income. Two categories—wages salaries and AFDC—account for about 84 percent of total WIC household income.

- Income from child support (9.3 percent), housing subsidies (6.9 percent), and Social Security (3.8 percent) is less frequently included in the income of WIC families and collectively accounts for only 5.2 percent of total countable income. All other sources of income are received by 3 percent or fewer of WIC households, and no single source accounts for more than 1 percent of total household income.

Income Reporting and Change

- When reported income for certification is compared with verified in-home audit findings, data reveal that only 36 percent of enrollees correctly reported their income—with "correct" defined as reported monthly income within $50 of verified in-home income for the same time period. Income was underreported about 43 percent of the time and overreported about 22 percent of the time. Thus, substantial income misreporting exists.

- In-home audit data indicate that over a 4-to-5 month period following certification, about 55 percent of WIC households maintained stable incomes—with "stable" defined as either no change or a change of less than $100 per month.

- Over this same time period, approximately 26 percent of WIC households experienced an income increase (15.4 percent) or decrease (10.5 percent) of between $100 and $500 per month. Of the sampled households, 19 percent experienced an income change—either an increase (10.3 percent) or decrease (8.7 percent) of greater than $500 per month.

Income Eligibility: Error Rates and Characteristics

- The national certification error rate (defined as the percent of enrollees certified to receive, but not eligible for, WIC benefits) is 5.7 percent. This translates into a total number of ineligibles of approximately 214,000 out of a nationwide WIC enrollee population of about 3,700,000 in FY88.[4]

- The dollar error (defined as the amount of WIC food funds spent on income ineligibles) is 5.8 percent. This translates into $84 million spent on ineligibles out of a total WIC expenditure of about $1.5 billion in FY88.[1]

- Ineligible enrollees have, for the most part, relatively low incomes. That is, about 23 percent have incomes between 186 and 200 percent of poverty, 45 percent between 201 and 250 percent of poverty, 17 percent between 251 and 300 percent of poverty, and less than 5 percent have incomes at or over 300 percent of poverty.

- While about 55 percent of those determined to be income-ineligible at certification—based on in-home audit data—remain ineligible some 3 to 4 months later, approximately 45 percent experience post-certification income decreases that would make them income eligible.

- No significant differences in error rates exist across racial/ethnic groups, household size, and participant category (i.e., women, infants, or children). On the other hand, for those who report relatively high income or report wage or salary income, significantly higher than average ineligibility rates were observed.

- WIC households that participate in other Federal programs—Food Stamps, AFDC, Medicaid, and the Temporary Emergency Food Assistance Program (TEFAP)—have significantly lower than average ineligibility rates.

MAJOR STUDY CONCLUSIONS

National Error Rates. The national WIC certification case error rate is 5.7 percent. This rate is relatively low compared to other food assistance programs. The national dollar error rate is 5.8 percent. This translates into $84 million spent on ineligibles out of a total of about $1.5 billion in FY88.[1] These low case error and dollar error rates are due, in large part, to the very low incomes of WIC households. That is, considerable underreporting of income exists but does not seriously affect eligibility. An upward shift in the income distribution of WIC participants could substantially increase error rates.

Error Rates Issues. Several factors unassociated with the error rate tend to keep WIC dollar errors relatively low. These programmatic factors include the concept of a "single level" benefit award whereby participants receive a fixed WIC benefit independent of family income (i.e., no errors are associated with benefit over-issuance). Also, because there is no Federal requirement that participants report income changes, eligibles whose incomes rise above the Federal or State poverty threshold level may continue to receive benefits. Finally, the relatively low discovered error rate obtained in this study was influenced, in part, by the general methodological framework in which error was defined. That is, errors were only declared when there was a clear and documentable violation of State procedures.

Income Characteristics of WIC Families. WIC households are primarily low income families with more than one-half below 100 percent of the Federal income poverty guidelines. Almost all households now enrolled in the program have incomes at or below the allowable Federal income level (i.e., 185 percent of poverty). Almost two-thirds of all WIC households have income from wages and salaries which accounts for three-quarters of their total income.

State Income Determination. Almost all States agree on the income sources that should be counted toward WIC eligibility. These commonly agreed-upon income sources account for the overwhelming proportion of total WIC household income.

Changes in WIC Household Income. Nearly two-thirds of all WIC households have verified income that differed from the income reported at certification by at least $50—a criterion used frequently in other food assistance programs. Once certified income-eligible, about one-half of those households maintain a relatively stable income over the next few months, while the others experience considerable increases or decreases in countable income. However, these major income shifts, as well as the substantial differences between reported and verified income, do not affect program ineligibility rates anywhere to the same degree.

State Certification Procedures. Self-declaration, a method used to establish family size and income, was used by a majority of all WIC State agencies (geographic, Indian, and territorial) in the fall of 1986.[3] Only one-fourth of all State agencies required documentation at certification. In geographic WIC State agencies, where the majority of WIC participants are enrolled, just over one-third of all applicants must submit income documentation in order to be determined income-eligible.

State Economic Unit Determination. Federal regulations and guidance allow for some State discretion in defining "economic unit." States, in turn, have defined the term in a variety of ways—legal, economic, biological, social, etc. In part, this is intended to allow for State coordination among several assistance programs. The extent of variation from State-to-State is such that the members constituting a WIC family or household in one State might not be considered an eligible family or household in an adjoining State. Furthermore, specialized definitions and rules regarding eligibility for foster children, emancipated minors, institutionalized individuals, etc., vary considerably from State to State.

Executive Summary Notes

[1]Total available FY88 food expenditures were $1,435,363,000.

[2]P.L. 101-147 (10 Nov. 1989) altered program income eligibility. See: Sec. 123(a).

[3]Indian State agencies account for 28 of the 40 WIC State agencies that use self-declaration as the primary method to determine income and family size. The large number of Indian State agencies using self-declaration is due to the fact that WIC Regulations allow these agencies, where the majority of the Indian households in the agency's service area have incomes at or below the State agency's income guideline, to obtain FNS approval to use an abbreviated method of self-declaration. Under this method, an Indian State agency may determine income eligibility by simply asking each Indian applicant household to sign a statement that certifies that the applicant's family income does not exceed the State agency's maximum income guideline.

[4]Based on the preliminary FNS enrollment estimate for October FY88 of 3,777,283.

1.

INTRODUCTION

This chapter presents background information on the WIC program and income eligibility in WIC and introduces the WIC Income Verification (WIV) project. Data on income eligibility errors in WIC from prior studies, which were reviewed as part of Phase I of the WIV project, are briefly summarized. The purpose of Phase II, the WIV survey, is then discussed. The chapter ends with an overview of the remainder of the report.

THE WIC PROGRAM

USDA's Special Supplemental Food Program for Women, Infants, and Children (WIC) is a program for low-income infants, preschool children, and pregnant, postpartum, and breastfeeding women at nutritional or medical risk. The program's objective is to improve the health of participants by providing nutritious supplemental food, nutrition education, and referral to health care services.

Legislation authorizing the WIC program was passed in 1972, following the recommendation of the 1969 White House Conference on Food, Nutrition and Health that special attention be given to the nutritional needs of pregnant women and preschool children. Originally authorized as a 2-year pilot project, the program has since become nationwide in scope. In 1974, WIC served approximately 88,000 participants at an annual cost of $10.4 million. In 1988, the program served over 3.4 million participants at an annual cost of $1.7 billion.

WIC is administered by the USDA's Food and Nutrition Service through FNS headquarters and seven regional offices. The program operates through cash grants to State health departments or comparable State agencies. State WIC agencies distribute funds to participating local agencies, which in turn operate through local clinics. State agencies bear the responsibility for developing specific applicant eligibility criteria and for ensuring that these criteria are applied properly at local WIC sites. Currently, 1,600 local WIC agencies and 7,500 WIC clinics are responsible for certifying applicants as eligible for program benefits.

WIC applicants must meet three types of eligibility criteria: categorical, nutritional, and income. Categorical eligibility is limited to pregnant women up to 6 weeks postpartum, breastfeeding women up to 1 year after childbirth, nonbreastfeeding postpartum women up to 6 months after delivery, and children from birth until 5 years of age. Within broad Federal guidelines, each State sets its own nutritional risk criteria based on State nutrition and health policies. States also have a certain amount of discretion in establishing income eligibility criteria. Moreover, applicants must reside within the State (or for Indian agencies, within the agency's jurisdiction). States may also require applicants to reside within a local agency's service area.

INCOME ELIGIBILITY IN WIC

Although income-eligibility determination always has been a component of the WIC application process, formal Federal guidelines were not introduced until July of 1981. Historically, greater emphasis has been placed on categorical status and nutritional risk. Even with the introduction of formal guidelines, the Federal Government has allowed some degree of discretion on income eligibility procedures for States and local WIC agencies, and practices at these agencies vary.

Federal regulations in place for Fiscal Year 1989 required the State agency to set income guidelines either "equaling the income guidelines . . . for reduced-price school meals or identical to the State or local guidelines for reduced-price health care" (CFR 246.7(c)(1), July 1988). However, if the State chooses to use the reduced-price health care guidelines for WIC, the WIC income guidelines must fall between 100 and 185 percent (inclusive) of the Federal poverty income guidelines.

Both sets of guidelines specify maximum allowable incomes that vary with family size. Because of this variation, two types of data are required to determine income eligibility:

- **Economic unit size**: How many persons are in the applicant's family (also called the household or "economic unit")?[1] and
- **Economic unit income**: What is the total countable income[2] of those persons?

Income-eligibility determination in WIC involves identifying all potential members of the applicant's economic unit. Next, each person is determined to be a member or a non-member of the applicant's economic unit. The countable income of each member is then determined. Finally, the income of the applicant's economic unit is compared to the income guideline for families of that size. If the economic unit's income exceeds the maximum for that size economic unit, the applicant is ineligible for WIC. If the economic unit's income is equal to or less than the maximum for that size economic unit, the applicant meets the income-eligibility criteria for WIC. It is worth emphasizing that knowing the economic unit's income is not enough to determine whether or not an applicant meets the income guidelines. The size of the economic unit must also be known. This issue is examined in greater detail in chapter 4.

Within approved boundaries, Federal regulations allow considerable discretion to State and local agencies in determining and verifying income and household information. States are required to design an application form or approve a locally developed application form for income determination. States may use self-declaration, in which the State accepts the amount reported by the applicant as the income of his or her economic unit, or they may request or require the applicant to provide documents substantiating the reported income. State and local WIC agencies may contact third parties to verify income information but are not required to do so. States may also use a procedure called "presumptive eligibility." In this procedure, the State accepts proof of participation in another means-tested program as evidence that an applicant meets the WIC income-eligibility guidelines. The requirements are that the other program is State-administered, has income-eligibility guidelines at or below the State's WIC income-eligibility guidelines, and routinely verifies income. In the quality assurance literature, this is known as "piggybacking" on another program's verification process.

The Administration, Members of Congress, and others with program oversight responsibilities have expressed their concern over possible income-eligibility determination error in the WIC program. A major concern is that income-eligibility determinations based on WIC applicants' self-declaration may result in unintentional or deliberate misreporting of income or household size (or both). In a 1985 report, the General Accounting Office (GAO) recommended that the Secretary of Agriculture pay greater attention to income-eligibility determination in the WIC program and promulgate regulations to require income documentation.[3] The WIV project was USDA's response to these concerns.

THE WIC INCOME VERIFICATION (WIV) PROJECT

The WIV project was a two-phase evaluation of participant income eligibility determination procedures in the WIC program.[4] The study had two objectives:

- to inform the Agency of the status of current income certification procedures and

- to estimate current income certification error on a nationwide basis, both as a percentage of WIC enrollees and in total program dollars.

The study was conducted in two phases. Phase I consisted of several major activities:

- the identification and assessment of exemplary income verification procedures through interviews, review of written materials (forms, reports, and a sample of case files), and on-site observation at 10 local agencies in five States;

- a State census of current income-eligibility determination procedures in all 87 State agencies (State agencies include Indian agencies and territories) and

- design of a national survey to determine the overall income eligibility error rate for WIC.

Phase II involved collecting, analyzing, and reporting data on current income certification error nationwide. This was accomplished through the WIV survey. Survey interviews were conducted in September through November of 1988. The survey employed a nationally representative sample of 884 WIC enrollees selected from 25 States, 42 local WIC agencies, and 71 WIC clinics. The core of the survey interview was an in-home audit in which enrollees were asked for detailed information and documentation relating to their WIC income eligibility.

This report presents the results of those in-home audits.

SUMMARY OF PRIOR RESEARCH

No formal prior research has attempted to develop valid estimates of income-eligibility determination error rates in the WIC program. However, there are several sources of data on the self-reported income of WIC participants. One of the first activities of Phase I was a review of extant data on income certification error in WIC.

The Census Bureau's Survey of Income and Program Participants (SIPP), a national in-home survey of 20,000 households, obtains income data on households that report receiving WIC benefits. Data for the period from July to September 1983 indicate that between 9 and 14 percent of the families had incomes above 185 percent of the poverty threshold.

USDA/FNS's 1984 Study of WIC Participant and Program Characteristics (PC84), which involved a review of 6,444 WIC case files, indicated that very few participants had incomes that were either above or just below 185 percent of the poverty threshold.[5] This finding is comparable to that of the USDA/FNS National WIC Evaluation, which found that approximately 80 percent of WIC mothers reported household incomes below \$13,000.[6] A re-analysis of these data in Phase I of the WIV project found that 78 percent of pregnant women on WIC reported incomes below the poverty threshold, with 97 percent below 185 percent of the poverty threshold.[7]

All three of these national studies had methodological limitations with regard to estimating WIC income certification error:

- Income data was from unverified participant interviews or abstracted from case records.
- Across-State variations in income-eligibility criteria, including differences in the poverty level percentage for eligibility and the definitions of economic unit and countable income, were not reflected in the analysis.
- The income data were not linked to the period during which the respondent actually participated in WIC.

The PC84 survey also collected self-reported income data on WIC participants. The survey estimated that 3.2 percent of participants have incomes over 185 percent of the poverty level; this is the income standard used in most States. There are several reasons to think that this estimate is low. First, because the data were collected in WIC clinics by WIC staff, enrollees may have felt that reporting higher income would threaten their benefits. Second, few steps were used to ensure full and complete income reporting. Third, no documents were requested to support the reported income amount.

Furthermore, there is no reason to expect a one-to-one correspondence between income data obtained by PC84 and that obtained by WIV from the same respondents. PC84 used uniform definitions of economic unit, reporting periods, and income for all survey respondents. In contrast, the WIV survey based its definitions of economic unit, reporting period, and income on prevailing State and local eligibility standards and procedures.

Two very limited studies of WIC income-eligibility determination error rates were conducted during 1985 and 1986. The studies, which took place in three States, indicated error rates ranging from 1 to 9 percent. However, these studies were not methodologically sound, nor were the sample sizes sufficient for valid statistical inference.[8]

PURPOSE OF THE PHASE II SURVEY

The WIV survey estimated the national case income certification error rate (excluding Indian and territorial State agencies because of substantial differences in income-eligibility determination procedures). The national case income certification error rate is the proportion of all cases certified or recertified as eligible for WIC benefits (in the 50 States and the District of Columbia) that were ineligible because of income exceeding the allowable amount as defined by the State program.

Secondary objectives included estimating other income certification error rates, such as the error rate if the Federal standard of 185 percent of the poverty level were applied to all cases, and the error rate partway through the certification period.

The respondents' estimate of their ability to comply with requirements for income documents and other information as a condition for participation in WIC was also investigated.

OVERVIEW OF THE REPORT

Chapter 2 presents a brief overview of Phase I study findings on State agency policy and procedures relating to income eligibility verification and documentation.

Chapter 3 reviews the methodology of the Phase II WIV survey. Chapters 4 and 5 discuss the key concepts in income certification error, economic unit size and economic unit income, and they present the results of the survey relating to the WIC economic unit and its income.

Chapter 6 gives the main findings of the WIV survey. Income certification case and dollar error are presented, and correlates of error, error in relation to other Federal programs, and the effects of changes in income are discussed.

Chapter 7 covers the reported ability of WIC enrollees to conform to alternative procedures for income certification. Chapter 8 summarizes the study's conclusions. The report concludes with technical appendices on sampling, the WIV survey questionnaire, references, a substudy that attempted to reconcile information gathered at certification with information from the WIV survey, the Federal regulations and guidance relevant to income certification, alternate definitions of income-eligibility error, and general definitions of WIC Economic Unit.

Chapter 1 Notes

[1]"Economic unit" was defined in FNS Instruction 803-3 as "a person or group of persons who usually (although not necessarily) live together, and whose production of income and consumption of goods or services are related" (10/22/82, p. 3). The instruction suggests that the terms "economic unit" and "family" be used interchangeably. The term "household" is also used interchangeably with the other two terms in this report.

[2]Note that, in the WIC program, countable income does not include assets or in-kind income.

[3]U.S. General Accounting Office, *Need to Foster Optimal Use of Resources in the Special Supplemental Food program for Women, Infants and Children (WIC)*, September 27, 1985, GAO/RCED-85-105, pp. 67-68.

[4]Income-eligibility determination, as part of the process in WIC by which eligibility for benefits is certified, is also known as "income certification."

[5]Ebon Research Systems, Inc., *Study of WIC Participant and Program Characteristics*, 1986.

[6]Research Triangle Institute, *Evaluation of the Special Supplemental Food Program for Women, Infants, and Children (WIC)*, 1986.

[7]*Review of Current Income Eligibility Determination Procedures and Reported Participant Income Levels*, Quality Planning Corporation, March 1987.

[8]Each study was limited to a single State, did not employ a statistically representative sample, and failed to provide an independent and valid method for verification of total household income. For details, see *WIC Income Verification Project: Final Literature Review*, Quality Planning Corporation, January 1987; *The New Enrollees' Income*, Department of Health and Rehabilitative Services, State of Florida, 1986; and *The Client Summary by Financial Category and Priority*, Department of Health and Environmental Sciences, State of Montana, 1986.

2.

PHASE I ACTIVITIES AND FINDINGS

A primary Phase I activity was the WIC State Agency Census of income verification methods currently in use. The census involved telephone interviews with the WIC Director or other staff at each of the 87 WIC State agencies.[1] A copy of the State's WIC income certification forms and the section dealing with income and household size from each State agency's procedure manual was also requested.

As explained in chapter 1, the income-eligibility determination process in WIC includes determination in WIC clinics of economic unit membership (and thus economic unit size) and economic unit income, and comparison of the applicant's economic unit size and income to the income-eligibility standard. The State Census, however, focused on another aspect of income-eligibility determination, namely income verification. Income verification refers to procedures for confirming that the income reported by the applicant is correct.

The results reported in this chapter are at the State level. That is, the percentages and numbers presented represent WIC State agencies, not WIC enrollees. Income verification procedures are covered on the enrollee level in chapter 7, while the States' procedures for determining economic unit membership and income are covered in chapters 4 and 5, respectively.

INCOME VERIFICATION METHODS CURRENTLY USED IN WIC

The process by which a WIC local agency or clinic confirms that a household's reported income meets its eligibility standard is its income verification procedure. Each State agency was asked to describe its policy regarding the procedures to be used by WIC clinic staff in its jurisdiction. Based on the responses, four main policies regarding income verification were identified. In order of increasing rigor, these are:

- **Self-declaration.** Applicants report their income and household size to a clinic staff member. The applicant then signs a form showing the reported information and stating the consequences of misreporting. All local agencies and clinics throughout the State use this procedure; the State does not allow the use of other procedures.

- **Local variation.** The State policy is self-declaration. Local agencies have the option of using more rigorous techniques, and in some cases the State encourages them to do so.

- **Documentation requested.** Applicants are asked to provide documents showing their household's income, such as a paycheck stub or an Aid to Families with Dependent Children (AFDC) award letter. If an applicant fails to bring income documents to the certification interview, self-declaration is used. In some States, the applicant is asked to bring the documents within 30 days after certification; the applicant is provided with benefits for 30 days, and, in some cases, benefits are then terminated if no documents have been produced. In other States, the applicant is asked to bring documents later, with no deadline given; and in still others, the clinic does not pursue documentation once the applicant is certified.

- **Documentation required.** Applicants are told to bring income documents to the certification interview. An applicant who does not bring documents is not certified. The documentation-required category can be divided into two subcategories: application pended and application not pended. "Application pended" refers to the practice of completing all certification requirements other than documentation, and placing the application in a pending status. The applicant has only to bring in the documents to be certified. If the application is not pended, the applicant must make another appointment for the certification interview; all certification procedures are carried out at the second appointment.

According to the State Census conducted in 1986, then, income verification in WIC primarily involves two techniques: self-declaration and documentation. Local agencies also use a third technique, contact with a third party (such as the employer or social worker) when incorrect reporting of income by the applicant is suspected; however, States reported that the time required by this method restricted its use to suspect cases. Other techniques, such as computer matching of WIC enrollment records with wage records or those of other agencies, are occasionally used, but not on a regular basis.

Variations occur within the four categories identified above. For example, many Indian agencies used an abbreviated method of self-declaration. The abbreviated method is a special procedure allowable under WIC regulations only in Indian agencies that serve a predominantly poor population. Under the abbreviated method, a WIC agency may determine income eligibility by simply informing applicants of the income cutoff point for their size of household and asking whether their household income is below that point; specific income information is not required.

Another variation is the application of more rigorous techniques to suspect cases. Only documentation-required States insist on documentation for all applicants; however, in any State, a participant may be required to provide documentation of household income in specific cases where clinic staff have reason to suspect misreporting. Third-party contacts, such as calling the Food Stamp office to verify the applicant's household income, are occasionally used in suspect cases.

Finally, documentation-requested States pursue documentation to different degrees; some make a strong effort to obtain documentation in all but the most difficult cases, while others use self-declaration routinely after an initial attempt to document income.

The State census revealed that the predominant income verification practice is the use of self-declaration, followed by documentation required. Among the geographic State agencies, documentation required is the most common method of income-eligibility determination.

Figure 2-1 shows the distribution of the primary income verification methods across the 87 WIC State agencies. As can be seen from the figure, self-declaration was the primary income verification method for 40 of the 87 WIC State agencies. The next most common method, used by 22 State agencies, was to require documentation. Local variation and documentation requested accounted for 14 and 11 State agencies, respectively.

The income verification method varied with the type of State agency (see figure 2-2). Indian agencies accounted for 28 of the 40 WIC State agencies that used self-declaration as the primary method.

Two of the territories used self-declaration, and one required documentation.

Among the geographic State agencies, which serve the overwhelming majority of WIC participants, required documentation was the most common method. Documentation of income was required in 19 of the 51 geographic State agencies. Local variation was found in 14 geographic State agencies, self-declaration in 10, and documentation requested in 8.[2]

None of the Indian agencies or territories showed local variation in the primary income verification method; only the geographic

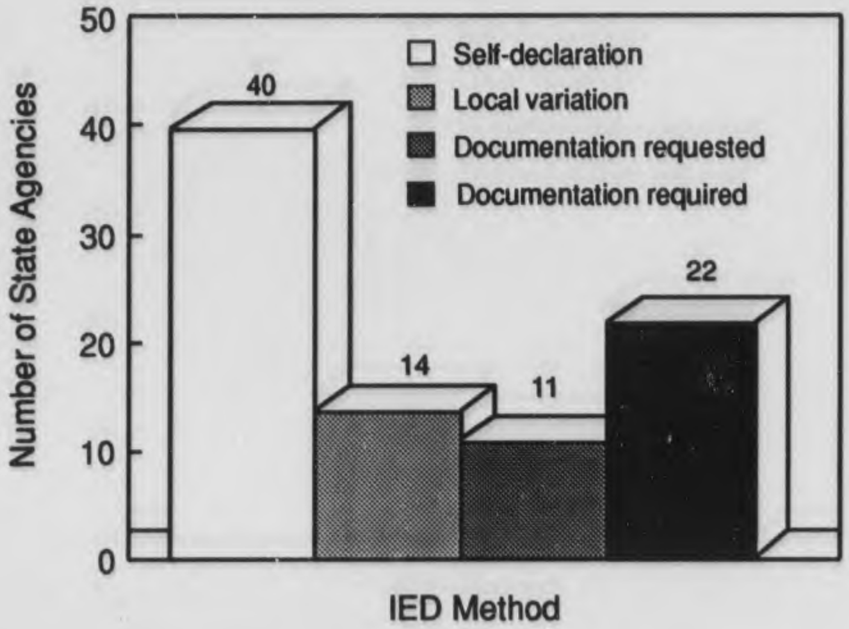

Figure 2-1. Primary income verification method.

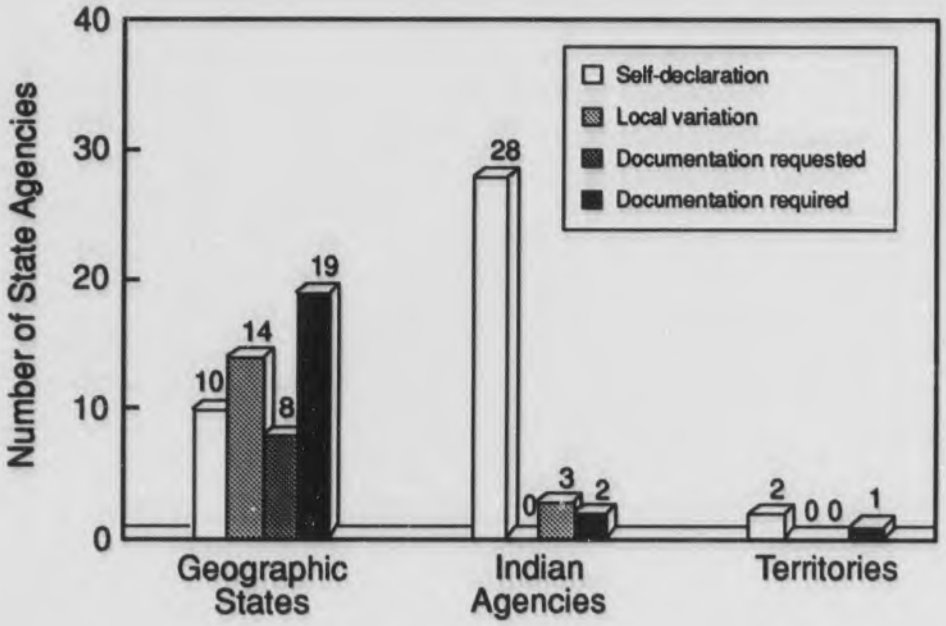

Figure 2-2. Income verification method by type of State agency.

States had some local agencies that used self-declaration and some that requested or required documentation. Of the 14 local variation States, 7 provided estimates of how many of their local agencies used self-declaration. These estimates, which ranged from 5 percent to 90 percent, indicate the degree of variation within the local variation category. This group of seven States was considered to have less rigorous income verification practices than the States that request documentation statewide; in five of the seven, half or more of the local agencies used self-declaration only.

SUMMARY AND IMPLICATIONS FOR PHASE II

Phase I of the study found substantial across-State variation in income verification procedures. While self-declaration predominated as the primary method in the 87 State agencies, documentation required was the most common method used in the 51 "geographic" State agencies (those representing the 50 States and the District of Columbia) that serve the overwhelming majority of WIC enrollees. It was not possible in the course of this study to directly examine case-file data nor to "reconstruct" the decision process at the clinic level where eligibility was actually determined. Therefore, Phase II of the study was only able to verify total size and income of the economic unit. As a result, it was not possible to provide data on misreporting[3] by income source nor on the local agency's grounds for determining household size.

Chapter 2 Notes

[1]The 87 State agencies include the 50 States plus the District of Columbia for a total of 51 "geographic" State agencies, plus 3 territories and 33 Indian agencies.

[2]By the time of the WIV survey, one of the local variation States had switched to requiring documentation. While this project did not collect 1989 data on State policies, we recently learned that another State had changed from local variation to documentation required.

[3]Misreporting is the incorrect reporting of income or household size by the applicant; it may be either accidental or deliberate.

3.

SURVEY METHODOLOGY

During the latter part of Phase I of the WIV project, the design for Phase II was modified to coordinate data collection efforts with those for the 1988 Study of WIC Participant and Program Characteristics (known as PC88).[1] PC88 sampled and collected data on WIC State agencies, local agencies, and participants; WIV added questions to the PC88 State and local agency questionnaires and the participant case-file abstraction form, and conducted in-home audits of a subsample of the PC88 participant sample. These in-home audits comprised the WIV survey.

The WIV survey was an in-home survey of persons certified as eligible for WIC during April to July 1988. The purpose of the survey was to estimate the national error rate in income-eligibility determinations, known as the "income certification error rate." The survey was designed to overcome the deficiencies noted in the review of prior research. Specifically, the WIV survey used:

- A nationally representative sample of WIC enrollees.
- A detailed in-home interview, with documents requested for all income sources. This in-home audit approach has been shown to produce more accurate and complete income data than a simple self-report procedure.
- The same income time period used by the WIC clinic to determine income eligibility.
- The same set of rules on countable income and household size used by the WIC clinic to determine income eligibility, as mandated at the State level. This was crucial, since State agencies' rules vary considerably within the limits set by Federal regulations.

DATA COLLECTION METHODS AND SCHEDULE

Data from both PC88 and the WIV survey are presented in this report. This section lists the various data sources and time periods in which data were collected. PC88 consisted of five primary data collection efforts:

1. **SAQ (State Agency Questionnaire),** a mail survey of 87 State agency WIC directors.
   01/88

2. **LAQ (Local Agency Questionnaire),** a mail survey of 220 local agency WIC directors.
   04/88

3. **PQ (Participant Questionnaire)**, interviews of 6,618 WIC enrollees conducted by local agency staff immediately after certification.
   04/01/88 to 07/27/88 (with data collection complete at most sites by 06/30/88)

4. **PRAF (Participant Record Abstraction Form)**, initial and follow-up record abstractions of the 6,618 enrollees' files by local agency staff. PRAF provided the data used in the WIV Project on reported income and household size.
   04/01/88 to 07/30/88

5. **Benefits Issuance Data,** data from the local agency on benefits issued to the 6,618 sampled enrollees over the 6 months following certification or recertification. Benefits were defined as food vouchers issued, though not necessarily redeemed.
   10/03/88 to 12/30/88

In addition to the five primary data collection efforts, PC88 generated a wide variety of other data files. These include sample weight files at the State, local, clinic, and enrollee levels; response probability files at the local level by category of participation; and total enrollment data at the State level by participant category and priority level. These files were used by WIV to develop sample weights.

The WIV project undertook five main data collection efforts:

1. **Census of State Income-eligibility Determination Procedures**, described in chapter 1.
   11/01/86 to 12/18/86

2. **WIV In-home Audits**. In-home audits of 884 of the 6,618 PC88 sampled enrollees were conducted. These in-home audits were the main income verification technique employed. The in-home audits verified income data collected on the PRAF for the same time period, and also collected income data for the month preceding the in-home audit.
   10/05/88 to 11/15/88

3. **State Verification of Income-eligibility Determination Standards and Procedures.** Sample States reviewed and corrected summaries of their income-eligibility determination standards and procedures.
   10/17/88 to 12/05/88

4. **Income Reconciliation Substudy.** When errors in income-eligibility determinations were found, enrollees were contacted by telephone to reconcile discrepant data. 01/16/89 to 02/14/89

5. **Contamination Substudy.** To evaluate the possibility that linking with PC88 could bias WIV in-home audit results, a special substudy was conducted. The substudy conducted in-home audits of a matched sample of enrollees who had not been involved in PC88, and compared the results to those for the main WIV sample. 01/24/89 to 02/24/89

Several elements of the study time-line require comment. First, the census of State income-eligibility procedures conducted in late 1986 is now a few years old. We know of two States that have changed their policies in the intervening period; there may have been more. Second, in-home audits took place an average of about 5 months after enrollment in WIC. The delay was necessitated by conditions of the merger of the two studies. We have no information on how much the delay resulted in deterioration of the quality of the in-home audit data nor on our ability to locate potential respondents. Memory problems may have masked or distorted some results.

IN-HOME AUDIT SAMPLING PROCEDURE

Figure 3-1 shows a map of the State and local agencies selected to participate in the WIV survey. The WIV sample consisted of a subsample of respondents to PC88.

The PC88 sample was constructed in four stages using a nested design. A first-stage sample of 28 State agencies (25 non-Indian and 3 Indian) was selected. Within the sampled States, a sample of 220 local agencies (217 non-Indian and 3 Indian) was selected. One or more certification sites was then selected from each participating local agency. Finally, a sample of 7,040 WIC enrollees was selected, recruited, and interviewed by local agency staff.

With minor variations, the PC88 enrollee sample consisted of individuals certified or recertified in sampled clinics from April through June 1988; at a few sites, data collection started later and continued into July. The sampled enrollees were interviewed, and data were abstracted from their case files.[2]

The WIV survey subsample was exclusively drawn from PC88 respondents. All 25 geographic PC88 State agencies were

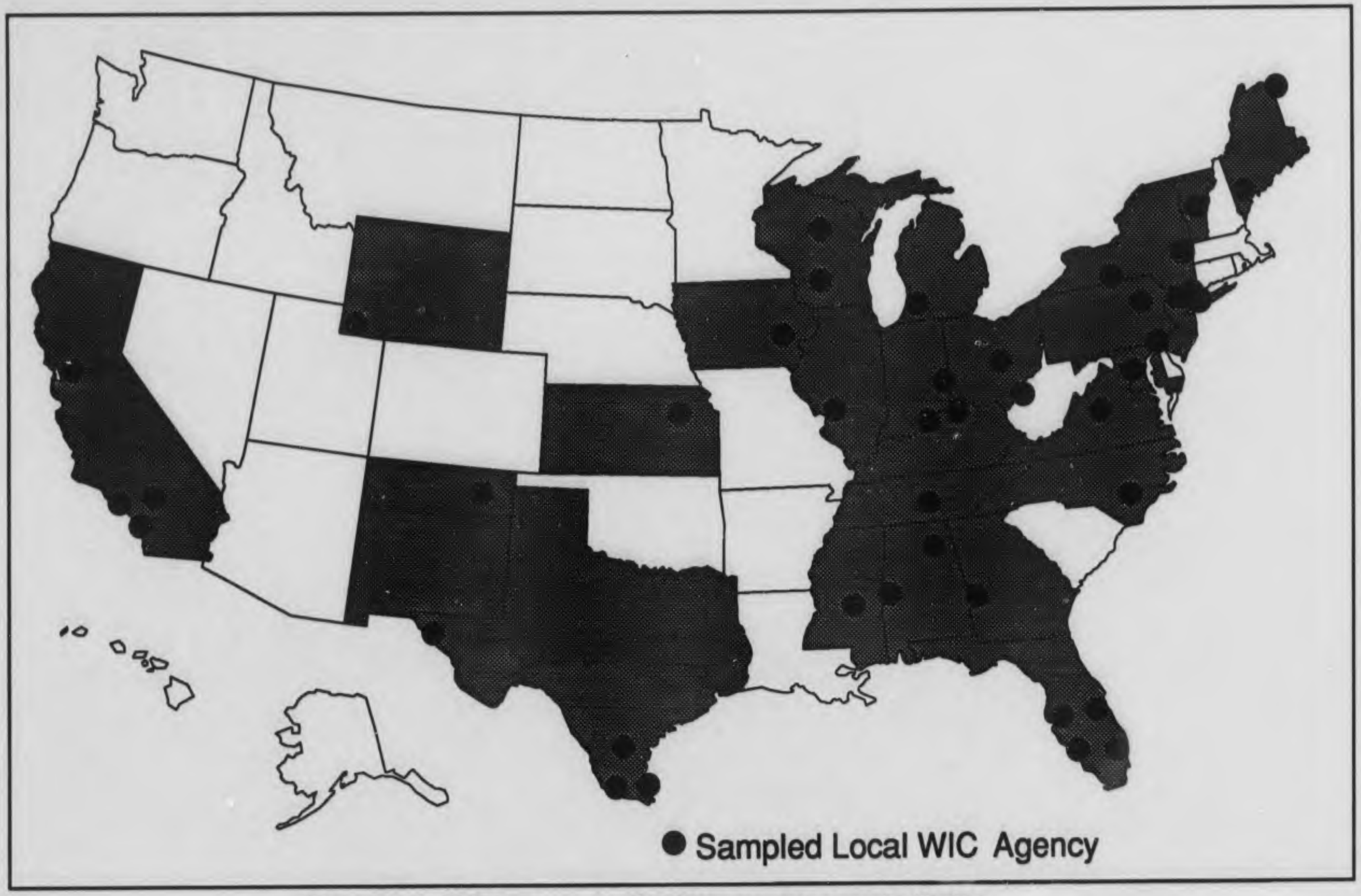

Figure 3-1. WIC income verification survey sample States and local agencies

included in the WIV subsample. However, the Indian agencies were excluded because of substantial differences on income-eligibility issues. Within the sampled States, WIV subsampled 41 of the 220 PC88 local agencies. Within each of the WIV local agencies, one or two PC88 clinics were sampled for a total of 72 clinics. Finally, within the sampled clinics, all PC88 respondents who agreed to allow follow-up data collection were sampled for WIV in-home audits.[3] The final WIV sample contained 25 States, 41 local agencies, 72 clinics, and 1,076 participants.

IN-HOME AUDITS

In-home audits are personal interviews combined with income documentation reviews. The in-home audits were conducted in the program recipients' homes by professional interviewers who had experience in conducting income studies. The interviews covered four primary topics: income, household composition, demographic characteristics of participants, and ability to respond to income verification requirements. The data from the in-home audits were used to determine each sampled enrollee's income eligibility (see the section titled "Operational Definitions of Major Variables" in this chapter for details).

To help ensure a high response rate, a variety of data collection steps were taken. First, an introductory letter requesting an interview and explaining the study was mailed to each respondent. The letter was designed to acquaint the respondents with the significance of the study, to assure them that confidentiality would be maintained, and to inform them that their participation in WIC would not be affected by information obtained during the interview. Accompanying this letter was a list of the types of income-related documents that the respondent would be asked to show the interviewer during the in-home audit.

WIC enrollees were then contacted by telephone to schedule appointments for personal in-home interviews. Up to five attempts were made to contact respondents. To maximize the coverage of the calls, one call was made during each of the following periods: weekday evening, weekday afternoon, weekend, and weekday morning. If telephone contact could not be achieved, up to three visits were made to the respondents' homes to schedule an appointment. Like the telephone calls, the visit periods were staggered. Once contact was made, an appointment was scheduled at the respondent's convenience.

The interview included a number of questions designed to identify and characterize all potential members of the enrollee's economic unit. During the interview, respondents were also asked to answer a detailed set of questions that required that they report the presence or absence of income from a long list of potential income sources, and the amount of income from each source for each adult household member. For every income source mentioned, the respondent was requested to supply documentary support. Examples of documentary evidence requested included check stubs and program eligibility certificates. Income information was collected for two time periods. The first was the time period used to determine eligibility at the time of certification (the financial data reference period or "FDRP" income). The second period was the month before the in-home audit; this was referred to as "current income."

Requiring respondents to report separately for each adult household member and for each potential income source typically reveals income that would not otherwise be reported. For example, when asked to report all household income, many respondents do not include such income as their grandmother's pension; they may not consider this part of the household's income because it is not the major source of income and may not be shared. Detailed income reporting prevents such omissions. Further, there is evidence that respondents may be more willing to commit sins of omission and simply not mention an income source, but are often unwilling to commit sins of commission and lie when asked if an individual has a particular source of income. Finally, the in-home audit method prevents respondents from using their own understanding of which types of income are considered countable by the WIC program and should be reported.

After data on all potential income were collected, the interpretation of what income to count was made by a senior project staff member familiar with program regulations in the participant's State. This same individual determined which persons were actually members of the enrollee's economic unit, in accordance with State and Federal policies.

SURVEY YIELD

Sampling weights were used in analyzing the WIV survey data to account for the varying probabilities of selecting a State, a local agency, or an enrollee into the sample. Generally, a sampling weight is equal to the reciprocal value of the probability that the sampling unit is included in the sample. The WIV sampling weight may be thought of as the number of enrollees in the population that the sampled enrollee represents. The weights allow us to make valid inferences about the entire WIC enrollee population.

Table 3-1 presents the basic sample design (further details are provided in Appendix A).

Table 3-1. Summary of All Stages of the Sample Design

Symbol	Selection Level	Random	Selection Mechanisms	Data Source
P_S	Probability of Selection of State Agency	Y	Probability Proportional to Enrollment	PC88 Sample Weight File
$P_{L\|S}$	Probability of Selection of Local Agency Within a Selected State	Y	Probability Proportional to Enrollment	PC88 Sample Weight File
$P_{WL\|L}$	Probability of Selection of Local Agency by WIV Given Selection of the Agency by PC88	Y	Constant Probability and Random Selection	WIV Sample File
$P_{A\|WL}$	Probability of Selection of a Site by PC88 Within a WIV Selected Agency	Y	Probability Proportional to Enrollment	PC88 Sample File
$P_{WA\|A}$	Probability of Selection of a Site by WIV Given the Site was Selected by PC88	Y	Constant Probability and Random Subselection	WIV Sample File
$P_{E\|WA}$	Probability of Selection of Enrollee in Selected Site	Y	Random Probability Conditioned on Enrollment Category and Sequence in Selection Period	PC88 Site Probability File
$P_{R\|E}$	Probability of Completed Response to PC88 Given Enrollee Selected by PC88	N	Unknown; Probabilities Determined at the Local Agency by Participant Category	PC88 Local Agency Reports
$P_{WR\|R}$	Probability of Completed Response Is Forwarded to WIV by PC88	N	Unknown; Sources of Losses Include Refusal to Allow Follow-up, State and PC88 Failure to Forward; Probabilities Determined at Local Agency Level	PC88 Case Tracking Files
$P_{AV\|WR}$	Probability That PC88 Respondent Could Be Located by Time of WIV	N	Unknown; Determined by Individual Respondent Life Conditions	WIV Case Tracking File
$P_{IHA\|AV}$	Probability of Completed In-home Audit Given WR	N	Unknown; Nonresponse Analysis Found no Systematic Biases	WIV Case Tracking File
W_{EP}	Weight of Enrollee to Reflect Level of Participation	NA	Based on Observed Number of Months Sampled Enrollee Participated	PC88 Follow-up Files
R_{SR}	Ratio Adjustment to State and Regional Participation Totals	NA	Ratio Adjustment by Participant Category	Federal Participation Files

Final sample weights were the cross-product of table elements. Four elements of the table ($P_{R|E}$, $P_{WR|R}$, $P_{AV|WR}$, and $P_{IHA|AV}$) represent nonrandom probabilities of survey response. Because the values associated with these probabilities are not random, issues of nonresponse bias must be addressed. The response rates for each of these values were generally high. The overall response rate for PC88 was $P_{R|E} = 0.86$. Of those responding to PC88, over 90 percent were included in the WIV sample base, $P_{WR|R} = 0.91$. Of the WIV sample base, over 90 percent could be located for the WIC survey, $P_{AV|WR} = 0.92$. Finally, the WIV survey itself had an 85-percent response rate for $P_{IHA|AV} = 0.86$.

While the response rates were high at all sample stages, there is reason for concern about the cumulative effect of the multiple points of sample loss. The cumulative effect was a low total response rate. The total response rate can be defined as the product of the four terms: 0.86 * 0.91 * 0.92 * 0.86 = 0.62.[4]

Table 3-2 presents total response rates by WIC participant category.

Sample weights were developed in four stages: (1) analysis of response bias, (2) development of sampling probability weights, (3) development of ratio adjustments, and (4) correction for length of participation.

First, a response bias analysis was conducted. We were concerned that systematic patterns of nonresponse might bias the survey results. For example, individuals who misreported their income to WIC might be more likely to refuse to cooperate in the survey than individuals who correctly reported their income. If this were the case, the survey results could underestimate the level of income certification error. To check for such potential biases we conducted four tests.

First, we analyzed reasons for nonresponse. Overall, 15 percent of those sampled did not respond. However, only 3.7 percent of those sampled did not respond because they refused to be interviewed. Another 2.1 percent of those sampled avoided being interviewed without refusing.[5] The remaining 9.2 percent of nonrespondents were not interviewed because they could not be located (6.6 percent), were ill or otherwise unavailable for the interviewing period (0.7 percent), were not at home after repeated calls (1.0 percent), or for other reasons (0.7 percent). This analysis showed a very low rate of refusal or avoidance of the interview.

Table 3-2. Total Survey Response Rates by Participant Category

Category	Response Rate
Pregnant Woman	0.52
Breastfeeding Woman	0.70
Postpartum Woman	0.61
Infant	0.66
Child	0.58
Total	0.62

Second, we compared respondents with nonrespondents on data from WIC files that were available for all individuals sampled. These variables included participant category, reported income, reported household size, local agency, and date of certification. We could detect no statistically or substantively significant difference between respondents and nonrespondents on available data.

Third, using WIV in-home audit data, we constructed an equation that predicted the probability of income ineligibility. The equation was based on predictor variables obtained from the case-file abstracts, which were available for all sample members.[6] Using this equation, we then predicted the ineligibility rate for both respondents and nonrespondents. Again, no difference was detected.

Fourth, we compared the survey response rate for clinics with high ineligibility rates to those with low ineligibility rates. If ineligible enrollees were more likely to refuse interviews, we would expect a higher nonrepsonse rate in clinics with high ineligibility rates. We found no correlation between clinic ineligibility rates and survey response rates.

These four tests led us to conclude that survey nonresponse is very unlikely to have biased our estimates of WIC income-ineligibility rates.

The second step in weighting the sample was to develop survey design weights. These weights assigned to each respondent a weight equal to that respondent's probability of selection into the sample. Basically, these weights are equal to the inverse of the probability of selection of a State times the probability of selection of a local agency within that State times the probability of selection of a clinic within the local agency times the probability of selection of an enrollee within the clinic. Within this basic structure, additional adjustments were made to account for nonresponse by weighting to total selected sample size by clinic and participant category (see table 3-1).

The third step in developing sample weights was to adjust the total weights so that the national enrollment estimates were consistent with the best available data. Such adjustments, known as ratio estimators, help improve the quality of the estimates and reduce sample error.[7] Using ratio estimators, we corrected the sample weights to reflect FNS regional WIC enrollment reports from March 1988.

The fourth step in developing sample weights was to correct for period of participation. As noted above, the basic sample design selects WIC enrollees. However, not all enrollees participate for the same period of time. Therefore, for the sample to adequately mirror WIC participants, it is necessary to weight it so that an enrollee who participates for 6 months, for example, is weighted twice as high as an enrollee who participates only for 3 months. Estimates of participation are needed for calculating the dollar value of benefits provided to enrollees who were erroneously certified as income-eligible. To develop these participation weights, PC88 obtained data on the number of months for which sampled enrollees participated in the WIC program during their certification period. These data, in turn, were used to develop weights that converted enrollment estimates into participation estimates.

The use of sampling weights introduces the possibility that a few highly weighted cases may significantly influence survey results. Two measures were taken to detect and correct this potential problem. First, an analysis was conducted of the influence of weights on the survey results. On the average, weights accounted for less than 5 percent of the variance on survey variables. Second, all analyses were conducted with both weighted and unweighted data. When any findings were discovered to depend on a few highly weighted cases, categories were collapsed to aid in stabilizing results. When statistically stable results were not obtainable, no finding is presented in this report.[8]

SURVEY LIMITATIONS

Sampling Variance

The results achieved from all sample surveys are subject to sampling error. Sampling error is defined as the difference between the results that would have been obtained had the entire WIC enrollee population been surveyed and the actual results obtained from the sample. Appendix A contains a detailed discussion of this source of error.

Measurement Error

In addition to sampling error, survey results are potentially subject to a variety of measurement errors. The in-home audit procedure is a major source of potential error. A respondent can either refuse to cooperate or deliberately underreport income. Extensive efforts were made to minimize the number of refusals. Also, rather elaborate measures were undertaken to minimize the incentives and opportunities for underreporting. A major incentive for underreporting was the threat that the income information would reach the WIC clinic and result in the loss of WIC benefits. We removed this incentive for underreporting income by guaranteeing confidentiality and that survey results would not affect WIC benefits; this guarantee was given both verbally and in writing.[9] Respondents were also requested to sign an agreement form, which committed them in writing to providing full and accurate information. The agreement said, "I understand that the information that I provide must be accurate in order to be useful. I agree to give responses that are complete to the best of my knowledge. I understand that any information I give will be kept private and confidential." The interviewer then signed the second part of the agreement, which stated that she would keep all information reported by the respondent confidential. This sort of informal contract gives the respondent an incentive for correct reporting of income. Research has shown that such agreements substantially increase the completeness and accuracy of survey data.[10] Ninety-five percent of the respondents signed the agreement form. The 5 percent who did not sign was too small a subgroup to permit meaningful statistical comparisons with the total sample.

Finally, the in-home audit questionnaire was designed to minimize the opportunity for underreporting. Income information was collected separately for all adult household members. For each adult, respondents were asked if that individual had any of 28 specific sources of income. This data collection technique minimizes forgotten income sources and varying understandings of what constitutes income and whose income should be reported. Further, with this method any misreporting must be an act of direct commission and not simply omission. Extensive probes were used to discover income in cases where individuals were reported to have no means of support.

A second source of potential measurement error arises from the link between the WIV study and PC88. Because the WIV in-home audits were based on a subsample of PC88 clinics, clinic workers knew well in advance that income information might be verified. This knowledge could have caused them to be more diligent or careful in collecting and recording income information than they might have been otherwise. We know that one State WIC program reviewed all PC88 clinic certifications before the in-home audits began. As a precaution against the potentially large biasing effects of the link with PC88, a special substudy was conducted. In this substudy, we conducted in-home audits with a sample of 44 enrollees not subject to PC88 interviews. The substudy sample was drawn from two PC88 clinics and matched to the PC88 sample in those clinics. Statistical analysis of the matched samples found no statistically nor substantively significant differences between respondents subject to PC88 interviews and respondents not included in PC88.[11]

The third possible source of measurement error concerns coding of eligibility by WIV project staff. Multiple measures were taken to prevent such errors. Briefly, each case was coded using the State rules in place at the time of enrollment; our interpretation of the rules was verified by State WIC staff; and all error cases were independently validated in three ways: a computerized eligibility cross-check, a reconciliation with abstracted WIC case-file data, and a reconciliation with the enrollee.[12]

OPERATIONAL DEFINITIONS OF MAJOR VARIABLES

Applicant/Enrollee/Participant

An applicant for WIC is a person who is applying to receive WIC benefits. If the applicant meets the eligibility requirements and the program's budget is sufficient to allow the provision of benefits to that applicant, the applicant is enrolled in the program and becomes an enrollee. A participant is an enrollee who receives nutrition education, referrals to other health programs, and/or supplemental food.

In this study, we generally use the term "enrollee" to refer to persons in the WIV sample. By this term, we mean any sample member who was certified as eligible to receive WIC benefits, regardless of whether or not he or she actually received benefits. When we use the term "participant," we refer to an individual who was both certified for WIC and received benefits. While there are often other WIC enrollees or participants in the household, the terms will refer specifically to that person selected for the WIV survey.

Certification/Recertification

Certification is the process by which the applicant for WIC benefits becomes an enrollee. Applicants must meet categorical, nutritional, and income-eligibility criteria in order to be enrolled in the WIC program. In addition, applicants are required to reside within the jurisdiction of the State agency (or, for Indian State agencies, within the agency's jurisdiction).

The certification process varies across State and local agencies. Although each State operates a WIC program, there are still a few areas within States that are not served by a local WIC agency. Persons residing in a WIC service area may make an appointment at a local WIC clinic to be screened for program eligibility at no cost to the applicant. At the clinic, the applicant completes an application form and undergoes a brief interview in which income eligibility is determined. Categorical eligibility, residence in the agency's jurisdiction, and nutritional risk are determined during the same appointment. If the applicant meets all three criteria and the clinic has the capacity to enroll all eligible applicants, he or she is certified. Eligible applicants in categories to which a low priority has been assigned (e.g., postpartum nonbreastfeeding women) may not be certified, if the clinic lacks the capacity to serve all eligible applicants.

WIC participants are usually certified for a period of 6 months. However, the intervals used for WIC certification vary somewhat. For example, a pregnant woman is certified for the duration of her pregnancy and up to 6 weeks postpartum. At the State agency's option, infants may be certified for a 1-year period extending up to the first birthday, provided that the quality and accessibility of health care services are not diminished.

At the end of the certification period, the enrollee may be eligible for continuing benefits. To receive those benefits, the enrollee must again be certified as eligible on all three eligibility criteria; this process is called recertification, and usually involves the same procedures as does certification.

Respondent

The respondent to a survey is the person who is interviewed. In the case of woman enrollees, the selected enrollee is also the respondent. However, many WIC enrollees are infants and children and cannot answer the survey questions. An adult respondent was selected to answer for these enrollees. This respondent was in most cases the person who brought the infant or child to the WIC clinic for certification or recertification (usually the mother). In the case of infant and child enrollees, the respondent was not automatically part of the enrollee's economic unit. For example, if the economic unit consisted solely of a foster child and the respondent was the foster mother, the respondent was not in the child's economic unit.

Some of the variables measured by the survey apply to the enrollee, such as type of health insurance. Some are qualities of the enrollee's household, such as household size and income. Other variables apply to the respondent, such as how he or she heard about the WIC program and whether he or she was asked for income documentation.

Economic Unit/Family/Household

The terms "economic unit," "family," and "household" are used interchangeably in WIC. The Federal regulations define a family as a "group of related or nonrelated individuals who are not residents of an institution but who are living together as one economic unit."[13] An economic unit is generally defined as a group of persons whose production of income and consumption of goods and services is related.[14]

Defining the applicant's household is an essential step in determining income eligibility. The number of household members defines which maximum income applies, since the Federal poverty guidelines (on which the WIC income guidelines are based) set different maximum incomes for different family sizes. Also, the household's income is the sum of the income of its members; therefore, including or excluding a particular person can affect both household size and household income.

Many States have developed detailed policies to deal with questions of what persons should be included in the applicant's household. In addition to general policies, many States have policies that apply to special cases, such as pregnant teenagers, institutionalized family members, foster children, children under joint custody arrangements, and college students living away from home.

The definition of an economic unit is discussed in detail in chapter 4.

Income

The household's income for income-eligibility determination purposes is current gross cash income. Certain types of income are considered countable and included when determining income, while others are excluded. In addition to in-kind income, Federal regulations specifically exclude "payments or benefits provided under certain Federal programs or acts. . . . by legislative prohibition."[15] Many States also have specific policies listing excluded and included forms of income. Thus, for each household member, income from each countable source must be determined. To make this a bit more complex, in some States part of the income from certain sources is countable and part is not.

Federal regulations also provide the State and local agencies with discretion in deciding whether current income or income during the past 12 months best represents the family's status.[16]

Current income is not easily defined. The period of time that is thought to best represent current income varies across State and local agencies as well as across applicants. Perhaps the most common time period used is the calendar month prior to the date of certification. States were encouraged to use this period in the FNS Instruction 803-3, Revision 1, of April 1, 1988. Since applicants' household income may vary over time, it is important to know what time period was used by the local agency when income eligibility was determined.

The definitions of income used in the WIC program are expanded upon in chapter 5.

Financial Data Reference Period (FDRP)

"Financial Data Reference Period" is a term that was developed for use in this survey. It is defined as the time period for which income was assessed in the income-eligibility determination process. In other words, the FDRP is either the 12 months prior to certification or the local agency's operational definition of "current" for determining the household's current income.

We used the FDRP established by the local agency for a particular case wherever possible. When abstracting the case file for PC88, local agencies were to record the FDRP used. However, because the record abstraction took place after the certification and the FDRP is not generally recorded in the case file, the FDRP was not available in 68 percent of the cases. In these cases, the local agency's policy for assigning an FDRP, as reported in the PC88 local agency survey, was followed.

When an FDRP was based on local agency policy and an error was found, the FDRP was verified with the respondent through an individual telephone follow-up call. For details on the procedures used, see appendix D.

Income-eligibility Standard

WIC State agencies are of three types: geographic (i.e., the 50 States and the District of Columbia), Indian, and territorial. Because of significant differences in populations served, income-eligibility determination procedures, and other characteristics across these three groups, a decision was made to limit the WIV survey to the geographic States.

Each State agency sets its own income-eligibility standard; however, Federal regulations require the standards to be between 100 and 185 percent of the Federal poverty guidelines set by the Department of Health and Human Services (DHHS).[17] Poverty-level income varies with the size of the household. To allow for changes in the cost of living, the poverty level is revised yearly effective July 1.

In 1986, 75 percent of the geographic State agencies used 185 percent of the poverty level as the income-eligibility standard. A few States allow local agencies to set their own income-eligibility levels within the Federal limits. States also establish policies on how income and household size are to be defined. Revised policies are issued as needed.

Most local agencies use a procedure known as "piggybacking" or "presumptive eligibility" for some applicants. In this procedure, the income-eligibility determination procedure, followed by a program with a standard equal to or lower than that for WIC, is assumed to be accurate. WIC then "piggybacks" on that program's eligibility determination. The clinic does not determine household size and income, then, for an applicant who shows proof of participation in a program such as Medicaid or AFDC; the applicant is certified based on participation in the other program.

Income-eligibility Error

We defined two primary types of eligibility error. First is certification error. The certification error rate is the percent of WIC enrollees who were enrolled in WIC in violation of the prevailing income-eligibility standards.[18] Second is dollar error. The dollar error rate is the percent of WIC food dollars that are spent on enrollees who are ineligible.

In appendix F, other types of case and dollar error definitions are considered: error rates using Federal rather than State standards, error rates based on case-file abstraction data from the PC88, and error rates based on income changes during the certification period (using income from the calendar month before the in-home audit to estimate income change).[19] These have been compared with the main error rates.

INCOME CERTIFICATION ERROR DETERMINATION PROCEDURE

Determining income eligibility for the enrollees in the WIV sample required constructing operational and measurement models. The income-eligibility determination process was modeled for each of the State agencies in the sample, and any local agency variations were also noted. The model was then applied to each enrollee sampled from that State or local agency to produce an independent determination of income eligibility based on data from the WIV in-home audit. An income certification error was assessed for each enrollee for whom this independent determination concluded that the enrollee was not eligible.

The independent income-eligibility determination followed a 10-step procedure:

1. **Identification of Variables Used in Income-eligibility Determination**. Based on WIC State plans and procedure manuals, project staff identified all variables currently used by WIV sampled States in the income-eligibility determination process. These variables were incorporated in the in-home interview.

2. **Chart and Annotate State Income-eligibility Operational and Measurement Models.** In this step, we produced detailed flowcharts of State procedures. These flowcharts specified operational flows and

measurement tests that permitted assignment of any given applicant to either the income-eligible or the income-ineligible category.

3. **Provide Flowcharts and Annotations to WIV State and Local Agencies for Confirmation.** The models were based upon the State plans and procedure manuals. However, while some of these plans and manuals provide detailed policy on all conceivable issues, others describe only the general State policy. Some States have augmented their State plans and procedure manuals with additional guidance to local agencies on eligibility procedures. In many cases, States have given discretion to local agencies on some elements of eligibility determination. These considerations made it essential that WIV State and local agencies be given an opportunity to correct or supplement the models of their procedures. The State and local agencies annotated the models with any necessary changes.

4. **Adjust Income-eligibility Operational and Measurement Models on the Basis of State and Local Feedback.** The flowcharts developed in step 2 were modified to reflect the clarifications and additions provided by WIV State and local agencies.

5. **Abstract Eligibility Determination Records.** The WIV sample was based on a subsample drawn for PC88. As part of PC88, enrollee records were abstracted. These record abstracts included reported income and household size.

6. **Conduct In-home Audits.** In-home audits were conducted on a subsample of PC88 survey respondents. During the in-home audits, respondents were requested to provide detailed information on all income sources for all household members. Supporting documentation was requested. Respondents were also asked about all persons who were potentially part of the enrollee's economic unit.

7. **Conduct Independent Determination of Income Eligibility.** Results of the in-home audits provided the basis for an independent determination of WIC income eligibility. As described above, the determinations were based on applicable State and local income-eligibility models. Errors were declared only when the in-home

audits produced unambiguous evidence of rule violations. When the models allowed discretion on the part of the professional determining eligibility, the choice was always made in favor of the applicant. This decision rule was used for two reasons: First, our case reviewers were not in the position to overrule professional judgments made by WIC certification workers who had had direct contact with the prospective enrollee. Second, because most States explicitly allow various areas of eligibility worker discretion, use of this discretion should not be interpreted as error.

The independent determination classified each case as eligible, ineligible, or unable to determine eligibility (usually because of insufficient information).

8. **Perform Computer Edit Review.** Computer routines were written that compared State eligibility standards, enrollee income, and enrollee household size to produce an eligibility determination. Computerized determinations were used to detect errors in the eligibility determinations made during step 7. In all, less than one-half of 1 percent of the determinations were found to be incorrect. These determinations were corrected.

9. **Conduct Case Reconciliation.** For all cases initially identified as having errors in step 7, a rereview was conducted. A second coder, who was trained and experienced in WIC eligibility procedures, independently reviewed the WIV questionnaire data for that case. Whereas the first coder relied exclusively on in-home audit data, the rereview also included the relevant data abstracted from the case file for PC88. The rereview was designed to detect any errors in the original determination and to determine whether the original eligibility determination was allowable given the in-home audit data. Approximately 11 percent of the cases found ineligible in step 7 were reversed (to either eligible or unable to determine eligibility status) by the rereview. Cases for which the first reviewer had been unable to determine eligibility were also reviewed, and several were assigned to the eligible category on rereview.

10. **Perform Enrollee Reconciliation.** An attempt was made to contact by telephone all cases found in error in step 9, as well as all cases where inadequate data precluded an eligibility determination. Respondents were asked to aid us in understanding discrepancies

between income and household size data from their WIC case file and data obtained during the in-home audit. In approximately 22 percent of the error cases, new evidence was found to reverse the determination and declare the enrollee eligible. In all, 13 error determinations were reversed: 4 because of interviewer error, 6 because an incorrect income period had been used for the independent eligibility determination, 2 because the questionnaire was not sufficiently detailed to allow correct determination of eligibility, and 1 because of respondent recall error during the WIV interview; of the cases with inadequate data, 1 was determined to be ineligible and 4 were determined to be eligible.

Chapter 3 Notes

[1]Study of WIV Participant and Program Characteristics, 1988 Final Report (Volumes 1 and 2).

[2]WIV did not have direct access to case-files, but obtained case-file data indirectly from the PC88 PRAF.

[3]96 percent of all PC88 respondents in the sampled clinics agreed to follow up.

[4]The equation does not replicate exactly because of rounding effects.

[5]Avoiding being interviewed without actually refusing can involve a wide variety of creative behaviors such as never having a free moment for the interview, repeatedly telling the interviewer to please call back later, and repeatedly being away from home at the time scheduled for the interview.

[6]Discriminant function procedures were employed. The primary predictors in the equation were reported household income, median income reported in local agency, presence of wage income, and absence of AFDC income. The fit of the model was statistically significant at the 0.001 level.

[7]Ratio estimates are the ratio of the unadjusted estimate to the actual value as observed from an independent source. See Leslie Kish, *Survey Sampling*, New York: Wiley and Sons, 1965, pp. 433-34. Ratio estimators were necessary because the PC88 sample was based on the incidence of enrollment in WIC, not the prevalence of participation.

[8]As a rule of thumb, we excluded estimates with a relative variance above 0.5. We also did not present any error rate estimates for population subgroups containing fewer than 100 sample cases.

[9]Despite these measures, one potential respondent refused to cooperate, called her local agency, and withdrew from the WIC program.

[10]C. F. Cannel, P. V. Miller, L. Oksenberg, "Research on Interviewing Techniques," *Sociological Methodology*, S. Leinhardt, ed., Jossey Bass, San Francisco, 1981.

[11]For additional information on the substudy, see appendix D.

[12]For details, see the error determination procedures presented on page 3-17.

[13]*Federal Register*, Vol. 50, No. 30, Feb. 13, 1985, p. 6122.

[14]FNS Instruction 803-3, Oct. 22, 1982, p. 3.

[15]*Federal Register*, Vol. 50, No. 30, Feb. 13, 1985, p. 6127. See also *Federal Register*, Vol. 52, No. 107, June 4, 1987, p. 21234, for recent exclusion of certain Federal student assistance grants and scholarships.

[16]*Federal Register*, Vol. 50, No. 30, Feb. 13, 1985, p. 6127.

[17]7 CFR, Section 246.7(c). The income guidelines used by State agencies must equal either those for reduced-price school meals (185 percent of the poverty level) or those for free or reduced-price health care, with the proviso that the WIC income guidelines must fall between 100 and 185 percent of the poverty level.

[18]We include in the certification error rate errors that occur either at initial certification or at recertification. The definition of prevailing income-eligibility standards was made on a State-by-State basis using State plans, procedure manuals, and other materials provided by States. States individually verified our definitions of prevailing standards. No implication should be drawn that these other materials have been reviewed or approved at the Federal level.

[19]State agencies have discretion in ruling whether or not income changes during the certification period affect eligibility. Each State's policy was followed in calculating the error rate due to changes in income.

4.

THE WIC ECONOMIC UNIT

Determination of income eligibility for WIC is a complex process. Two variables are required for determining whether an applicant's economic unit's income falls within the income-eligibility guidelines: the number of persons in the economic unit, and the total countable income of those persons. This chapter discusses the first variable, determination of the economic unit membership. Once the economic unit is defined and its membership is established, the members' collective income can be enumerated. Chapter 5 reviews the second variable, economic unit income.

Federal regulations allow States a certain level of discretion in the definition and determination of economic unit membership. An in-depth review of the income-eligibility policies and procedures for the 25 sampled State agencies revealed that each State employed a unique set of policies and procedures.

The process by which the economic unit is determined varies across States at the most fundamental levels: Basic definitions of economic unit vary, definitions for special cases vary, and procedures for operationalizing the definitions vary. The degree of variation in these policies and procedures was a major finding of the WIV project.

WIC income certification error consists of enrolling applicants in violation of established eligibility standards. Therefore, understanding the variation in State economic unit membership standards is an essential prerequisite to understanding certification error. There is no across-State standard; State variations exist at the center of the income-eligibility determination process. Many applicants eligible in one State would not be eligible in another.

This chapter addresses the existing policies and procedures for identifying the members of an economic unit, as promulgated at the Federal level and implemented by State agencies. The chapter starts with a review of Federal regulations and instructions. This is followed by a discussion of State agency policies and procedures, including three examples of State economic unit determination models.

FEDERAL REGULATIONS AND GUIDANCE

State agencies have been provided by the Federal Government with two types of guidance in defining the economic unit. These two types are regulations and instructions.

A consolidation of the WIC regulations was issued by the USDA's Food and Nutrition Service in July 1988. This consolidation includes regulations issued June 4, 1987; July 2, 1987; January 27, 1988; and July 6, 1988. The consolidation, earlier Federal regulations, and instructions issued by FNS all help to define economic unit membership.

According to the consolidation,

> "'Family' means a group of related or nonrelated individuals who are not residents of an institution but who are living together as one economic unit."

The Federal regulations provide no further information on how membership in the applicant's family or economic unit can be determined.

In 1982, FNS issued Instruction 803-3 (10/22/82), titled *WIC Program--Certification: Income Eligibility*, to supplement the regulations. Revision 1 to FNS Instruction 803-3 was issued April 1, 1988; this revision had limited influence on this study, since it was issued on the date that data collection for the study began and most State agencies did not have time to respond to it before data collection ended. According to FNS, these instructions are binding on States.

The 1982 version of FNS Instruction 803-3 reiterated the discretion allowed the State and local agencies in economic unit determinations, provided a definition of an economic unit, and followed this with specific policies developed for special cases. The full text of this section is relevant because it illustrates the Federal view on certain types of special cases as well as the general definition of an economic unit. The text is as follows:

> "The philosophy regarding 'economic unit' and related issues is offered as guidance for State agencies using the WIC definition of income as outlined in the regulations. It is not the intent of this instruction to make income determination for WIC a complicated and lengthy procedure, nor is an answer readily available for every question on a specific case. Therefore, there will be times when State and local agency workers will need to use their discretion in determining income eligibility within the general framework of regulatory requirements and basic program policy.
>
> "A. For the purposes of the WIC Program, the terms 'economic unit' and 'family' can be used interchangeably. **We perceive a family to be a household or an economic unit composed of a person or group of persons who usually (although not necessarily) live together, and whose**

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production of income and consumption of goods or services are related. [Emphasis added.]

"B. A child is counted in the family size of the parent or guardian with whom the child lives. For example, the mother and child live together and receive child support payments from the father. The father has remarried and lives with his new wife who is expecting a baby. The new wife and the ex-wife apply for WIC benefits. The ex-wife and her child are a family of two, and the child support payments are counted as income. The father and the new wife are also a family size of two until the new wife has her baby. The child support payments cannot be deducted from the father's income and the child living with the ex-wife cannot be counted in the father's family.

"C. If a child resides in a school or institution and the child's support is being paid for by the parent or a guardian, the child may be counted in the family size of that parent or guardian. Even though this child is living apart from his parent or guardian for the majority of the time, the child may be counted as part of the family, since the family continues to provide the economic support for the child.

"D. If the child is a foster child who is living with a family but who remains the legal responsibility of a welfare or other agency, the foster child shall be considered a family of one. The payments made by the welfare agency or from any other source for the care of that child shall be considered to be the income of that foster child. If the annual income for the foster child is at or below the income criterion, the foster child is income eligible for WIC benefits.

"E. When a family has an adopted child or a child for whom the family has accepted legal responsibility, the child is counted in the family size of the family. The size and total income of that family shall be used to determine the child's income eligibility for WIC." (pp. 3-4)

The 1982 version of Instruction 803-3 also provides a definition of an emancipated minor:

"The determinant of whether a minor is emancipated and thus a separate economic unit for our program purposes is whether or not the minor is living without economic support form [sic] other persons. If the minor receives any support for which she does not pay, such as shelter or meals for example, she should not be considered a separate economic unit. If the

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minor pays all expenses for her own support, it is possible that the minor may then be considered a separate household. It is entirely possible for two separate economic units to reside under the same roof, although the determination of this is usually not a clear cut process." (p. 4)

This instruction also advises that pregnant women not be counted as two persons in determining the size of the economic unit.

STATE POLICIES AND PROCEDURES

Because Federal regulations are quite general and allow State agencies considerable discretion in defining economic unit membership, State agencies have developed their own policies and procedures. Therefore, to understand WIC economic unit definitions, one must be familiar with the State policies and procedures. The WIV project had three sources of information about these policies and procedures:

- The State Census conducted in Phase I.

- State plans and procedure manuals. The regulations require each State agency to submit a State plan to FNS for approval by August 15 of each year. The State plan must include a copy of the procedure manual issued by the State agency for local agency use, including a section on certification procedures (CFR 246.4 (a)(11)(i), 7/88). The sections of these State plans and procedure manuals treating economic unit determination were requested from the State agencies during the State Census. Later, more complete information was requested for the 25 State agencies in the WIV sample; this information was used to construct a flowchart of each sampled State's procedures.

- Contacts with State agencies by mail. Each of the 25 sampled State agencies reviewed its flowchart and corrected it as necessary.

The initial review included policy and procedure manual sections from 44 of the 51 geographic State agencies for which information was obtainable from State and Federal sources. The purpose of this review was not to provide a complete and detailed review of State procedures, but to simply identify variables used in the procedures. Figure 4-1 was based on that initial review. It shows the main variables required to determine income eligibility for an applicant. In order to make a determination of income eligibility, information on the specific percentage of the poverty income guidelines used by that State is required. Next, the number of persons in the economic unit must be determined. Finally, the

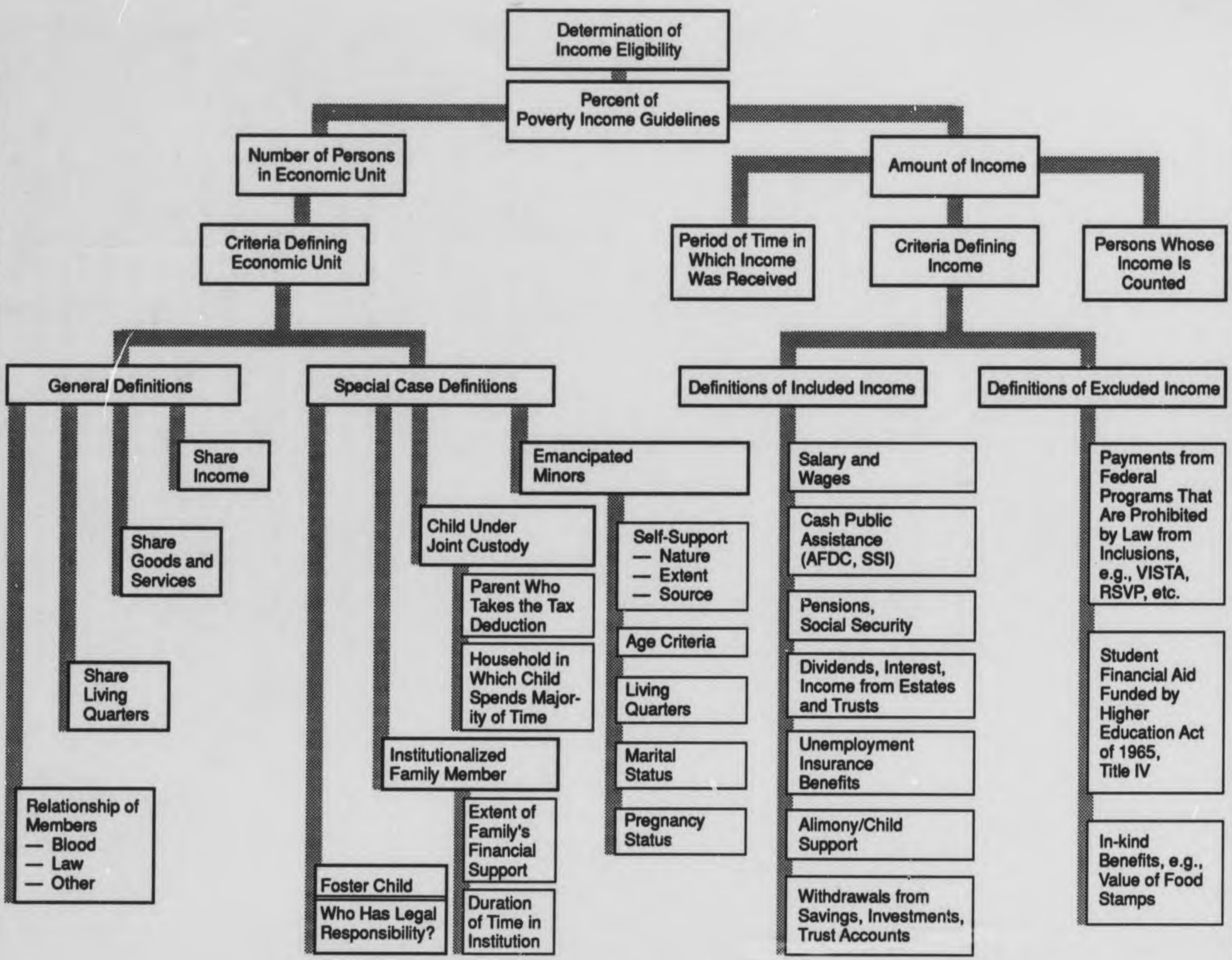


Figure 4-1. Income-eligibility determination tree.

income of those persons must be measured and compared to the income guidelines.

This chapter covers the left side of figure 4-1, or economic unit determination. Most State agencies' procedure manuals give a general definition of an economic unit, followed by definitions applying only to special cases. Under "General Definitions," the figure lists some of the variables that the States in the WIV sample included. For example, membership in the economic unit may require being related to the applicant, residing with the applicant, sharing goods and services with the applicant, or sharing income with the applicant.

Some States have more specific general requirements; for example, in some States the only acceptable relatives are the applicant's spouse, parents, and siblings; another State specifies that economic unit members must purchase food together, not just any goods or services.

Most States also have special case definitions; in some cases, the procedure manual has only special case procedures and lacks a general definition. Figure 4-1 shows some of the types of special cases that were identified during the initial review.

General Definitions

On the most basic level, family or economic unit can be defined in terms of legal relationships, economic relationships, residency, biological relationships, or social relationships. Different State WIC agencies have adopted various combinations of all these approaches.

A number of State agencies quote FNS Instruction 803-3 as their general definition of the economic unit. A few cite the Federal regulations as their definition. Others have unique general definitions, usually quite similar to that in FNS Instruction 803-3. Examples of these unique general definitions from State agencies' manuals reveal the fundamental differences that exist:

> "The household, family or economic unit is defined as follows: A person or group of persons who usually, although not necessarily, live together, and whose production of income and consumption of goods or services are related. . . . A key factor in determining an economic unit is establishing if income and consumption of goods and services are <u>shared</u>. A group of persons, whether living together or separately, are an economic unit by virtue of <u>sharing</u> income and consumption of goods and services." (1/87)

"Definition of Family. Persons living in one household who are related by blood, marriage, law or conception."

"Family size includes all related or non-related individuals who live under one roof and share financial resources for the purchase of food."

The three examples present entirely different criteria for determining household membership. The first definition explicitly excludes residency as a criteria; the second and third require it. The first and third definitions include economic criteria, while the second makes no mention of economic relations. The second definition relies on relationships of "blood, marriage, law or conception," criteria absent from the first and third definitions. Appendix G presents additional examples of general definitions of households used by State agencies.

Special Case Definitions

As fundamentally different as are the basic definitions of economic unit used by States, these basic definitions reveal only a portion of the total across-State variance in definitions of economic unit.

For most applicants, membership in the economic unit can be determined by the general definitions. For others, the special case definitions may be invoked. Some States have only one to two special case definitions, while others include procedures for many types of special cases in their manuals. Special cases defined by different States include households with individuals such as pregnant minors, foster children, college students who live apart from their parents but whose permanent home is with their parents, institutionalized family members, and children under joint custody arrangements.

In some States, special case definitions always include or exclude certain individuals from the economic unit. In other States, such individuals may be either included or excluded, depending on whether they meet one or more criteria. Some of these criteria are shown in figure 4-1 in boxes below the type of special case. For instance, in many States a foster child is a one-person economic unit if an agency (such as a court or welfare agency) has legal responsibility for that child; the key criterion is who has legal responsibility. To determine whether a teenage girl is an emancipated minor (i.e., a separate economic unit from her parents), States may consider, to list some of the more common criteria, whether the teenager is pregnant or has children; whether she supports herself, and if so the extent, nature, and source of her self-support; her current age or age at conception; whether the teenager lives with her parents, other relatives, nonrelatives, or alone; and whether she is now or has ever been married.

Once the State agency's criteria have been applied to each potential member of the applicant's economic unit, the identity and number of persons in the economic unit is known. This information is crucial for determining the applicant's eligibility, since the income of persons who are not members of the economic unit is not counted. For example, a pregnant minor living with her parents may be eligible for WIC benefits if she lives in a State that excludes her parents from her economic unit, and ineligible if she lives in a State that includes her parents in her economic unit. Economic unit definitions, therefore, can significantly affect eligibility.

Examples of State Economic Unit Determination Procedures

Variations in definitions of economic unit only reveal the surface of across-State variations in economic unit determination procedures. More fundamental differences exist in how these definitions are operationalized in practice.

Economic unit determination practice is an integrated and unique system in each State. Flowcharts of these systems were developed for each sampled State in the WIV study. To illustrate the variations in State agency policies, three examples of the State economic unit determination flowcharts are presented and explained in this section.

The "General Definitions" of economic unit discussed above and illustrated in figure 4-1 are represented on the flowcharts as "main paths"; these paths show the process that most applicants experience. States also have "side paths" that apply only to the special cases (see "Special Case Definitions" above and in figure 4-1).

The boxes on the flowcharts represent the steps in determining economic unit membership: actions, decision points, and outcomes. Paths, or the sequence of steps followed, are indicated by lines connecting the boxes. All flowcharts in this section are read beginning at the box in the upper left corner of the page. The main path starts from the bottom of that box and continues down the left side of the page; it generally turns at the bottom of the page and ends in the center of the right side of the page. The main path always ends at the final decision box, which asks whether the applicant's economic unit income is under the maximum for that size of family.

The diamond-shaped boxes represent decision points; if the question in the box is answered "yes," one path is followed, and if it is answered "no," another path is followed. The parallelograms represent outcomes, and the rectangular boxes are actions to be taken. For a particular case, a series of paths connecting certain boxes is followed until the final outcome box (either "Income Eligible for WIC" or "Not Income Eligible for WIC") is reached; the paths and boxes represent the procedures followed by the WIC staff member certifying an applicant.

Example 1. State with Simple Procedures

The first example flowchart (figure 4-2) is for a State with a very simple procedure. This State has only one type of special case and does not use the presumptive eligibility procedure. Judgment is to be applied at only one step: deciding whether to apply a higher income limit to the case than the limit used for most cases.

This flowchart begins with a decision box asking whether the applicant has a VOC (Verification of Certification) card from another WIC agency. Any applicant who possesses a valid VOC card is considered to be income-eligible for WIC in this State and need not go through the rest of the procedure. (The VOC card can be expired, as long as income eligibility was determined within the last 12 months.)

If the applicant does not have a valid VOC card, the next box asks whether the applicant is a foster child for whom the State has legal responsibility. If the answer is "yes," the side path to the right is followed. The initial outcome is that the applicant is an economic unit of one person. The WIC staff then takes an action (determining the foster child's income). The next decision box asks whether that income is at or below the maximum allowed for a one-person family; if the answer is "yes," the applicant is income-eligible for WIC, and if "no" the applicant is not income-eligible for WIC.

Note the discretion allowed in the final decision box in this example. In exceptional cases, a different income standard can be applied.[1] (Discretion is found at various points in the procedure for different States, as can be seen from the three examples in this section.)

An applicant with no VOC card and who is not a foster child for whom the State has legal responsibility goes to the third decision box on the main path: "Reside in household?" This means that, for each person who is potentially a member of the economic unit, the WIC staff must determine whether he or she resides in the applicant's household. If the answer is "no," that person is not a member of the applicant's economic unit (see outcome box).

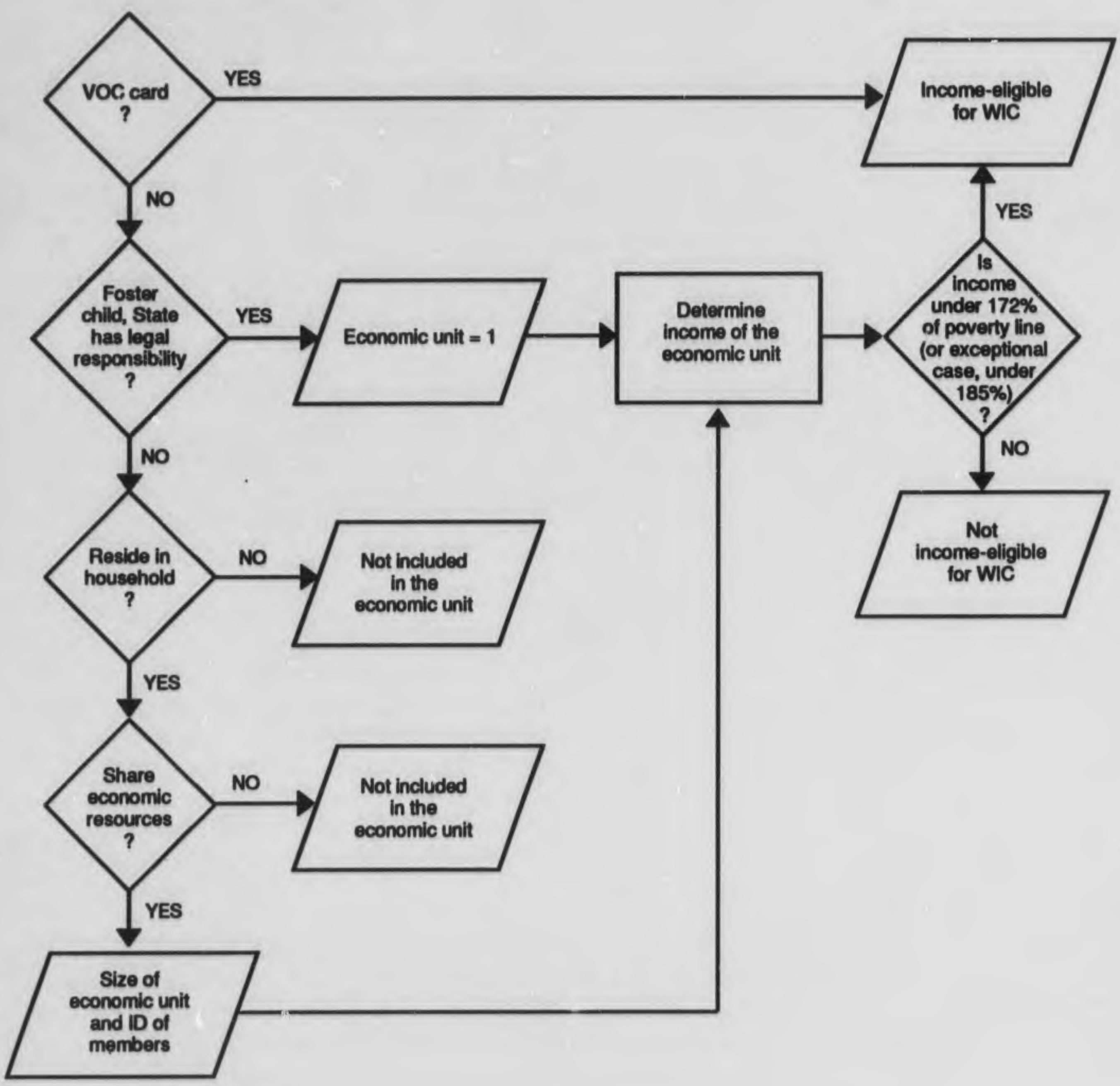


Figure 4-2. State with simple procedures.

Once all those who reside in the applicant's household are identified, it must be determined which of these persons share economic resources. Any who do not share with the others are not members of the economic unit. The fourth decision box on the main path shows this decision.

At this point, the identity and number of economic unit members is known. The next step is to determine the income of the economic unit (by determining the countable income of each member and summing). These applicants then reach the final decision box: Is the economic unit's income under the eligibility limit for that size of economic unit? As for a foster child, if "yes" the applicant is income-eligible for WIC, and if "no" the applicant is not income-eligible for WIC. Again, the discretionary higher eligibility limit may be applied.

A foster child who is the legal responsibility of the State is the only special case in this State. These applicants are the only ones for whom the procedure follows the side path. All other applicants follow the main path.

Example 2. State with Moderately Complex Procedures

The second example (figure 4-3) shows a State with more complex procedures. This state has numerous types of special cases (foster children, children living in schools or institutions, persons in prison, self-supporting minors, and children of divorced or separated parents). This State accepts enrollment in either of two means-tested programs (Medicaid and Food Stamps) as evidence of income eligibility for WIC. Judgment is to be applied at two steps: determining whether certain minors are essentially self-supporting, and making the final determination of economic unit membership.

The first apparent difference between this State and the one in the previous example appears in the first decision box (in the upper left corner of the chart). In addition to valid VOC cards, this State accepts enrollment in either Medicaid or Food Stamps as presumptive evidence of income eligibility. Persons who are enrolled in those programs are considered to be income-eligible in this State and need not go through the rest of the procedure.

If the applicant does not have a valid VOC card and is not enrolled in Medicaid or Food Stamps, the next decision box asks whether any child in the household resides at a school or institution. If the answer is "yes," the sidepath to the right is followed. If that child's parents pay for support, the child is not excluded from the economic unit. If not, that child is excluded from the

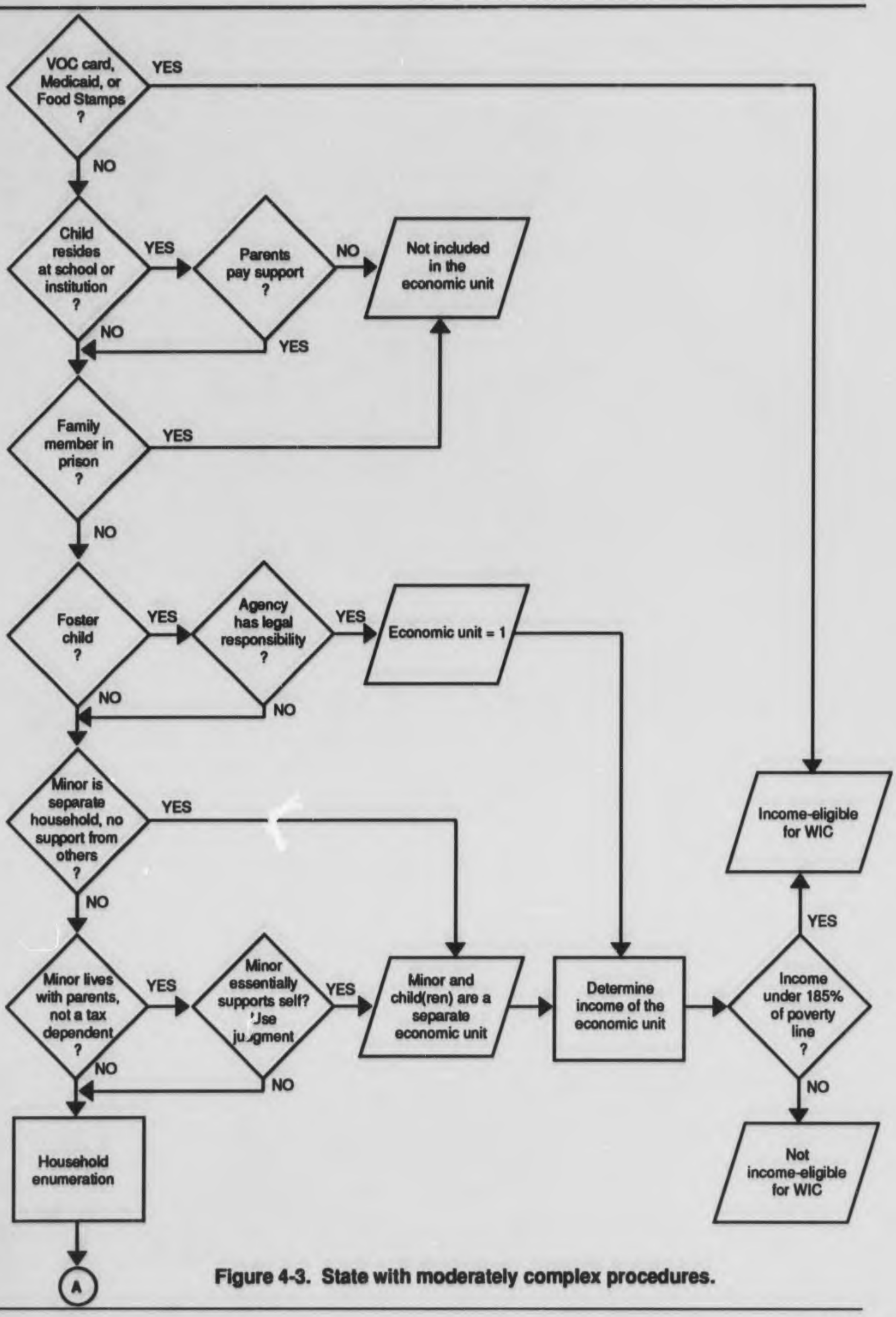


Figure 4-3. State with moderately complex procedures.

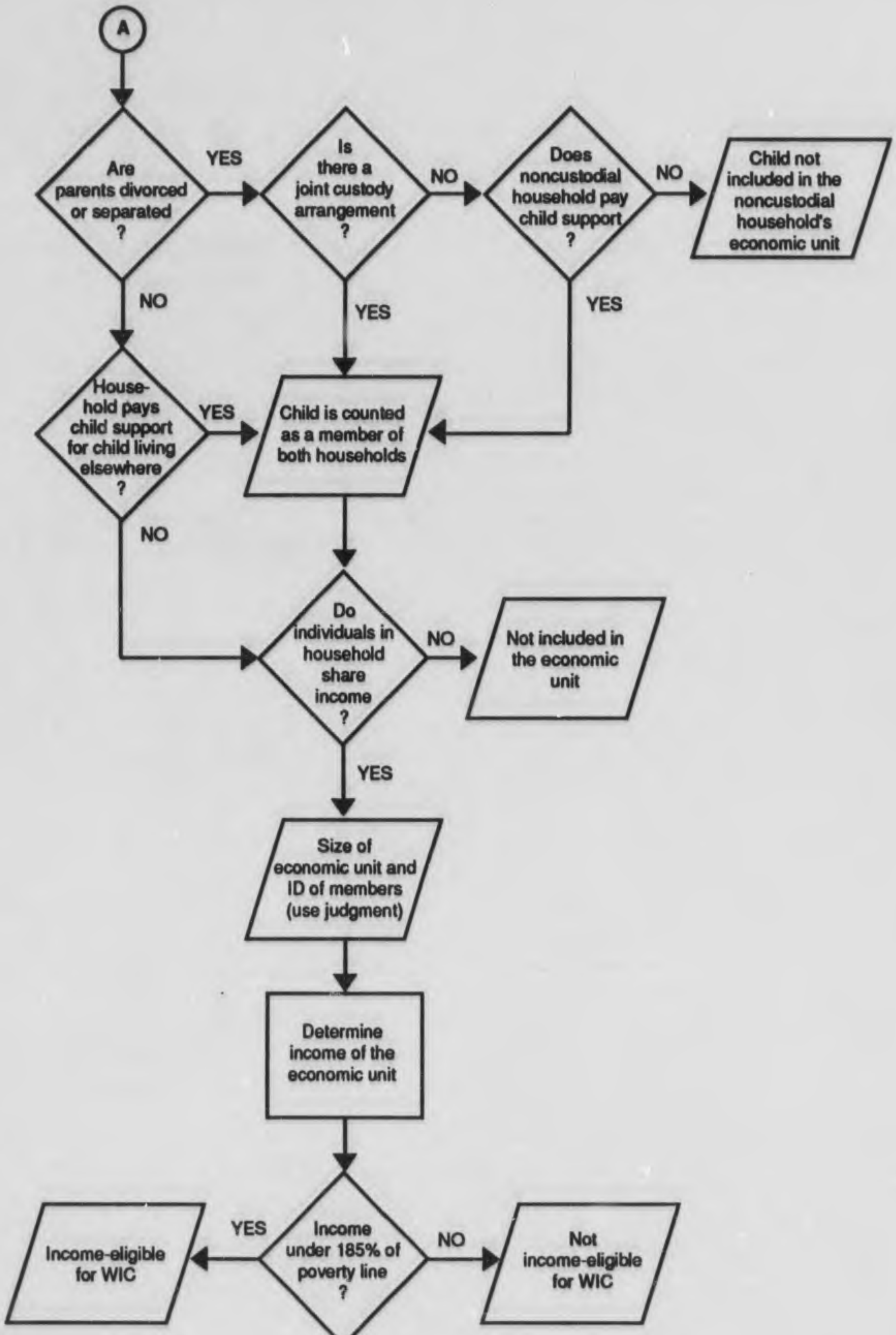


Figure 4-3. (continued).

applicant's economic unit. Note that if a child is excluded from the economic unit for this reason, the procedure for determining economic unit membership for the other members of the household continues on the main path.

The next decision box asks whether any member of the potential economic unit is in prison. If so, that person is not included in the economic unit.

The fourth decision box asks whether the applicant is a foster child. If so, the sidepath to the right is followed: If an agency has legal responsibility for the foster child, the child is a one-person economic unit and the money paid for the child's support is the economic unit's income. If that income is 185 percent or less of the poverty level for a one-person household, the child is income-eligible for WIC; if not, the child is not income-eligible for WIC.

If the applicant is not a foster child (or is a foster child for whom an agency does not have legal responsibility), the main path continues with the fifth decision box: Is the applicant a minor who lives in a separate household with no support from others? If the answer is "yes," the minor (and her children, if any) is a separate economic unit. The income and then the income eligibility of that economic unit are determined.

The sixth decision box asks: Is the applicant a minor who lives with her parents and is not claimed by them as a dependent for income tax purposes? If so, the sidepath to the right is followed. The decision box to the right asks whether the minor essentially supports herself. If the minor is determined to be self-supporting, the minor (and her children, if any) are a separate economic unit from her parents' economic unit. Several States allow a minor living with her parents to be considered a separate economic unit under certain circumstances. Note that judgment is to be used in making this decision.

If the applicant does not meet all of the criteria in the fifth decision box, the main path continues with an action box: enumeration of all household members who are potential members of the economic unit. This box is repeated on the next page to show the point from which the flowchart is continuing.

The first decision box on the second page asks whether the household includes any divorced or separated parents. If "yes," the sidepath to the right is followed. The purpose of this sidepath is to determine economic unit membership for children of parents who are divorced or separated. If a child is under a joint-custody arrangement, the child is counted as a member of both parents' economic units. If not, the next decision box on this sidepath asks whether the noncustodial household pays child support. If "yes," the child is counted as a member of both parents' economic units; if "no," the child is a member only of the custodial parent's economic unit.

The second decision box on the second page of figure 4-3 asks whether the applicant's household pays child support for a child living in another household. If "yes," the child is counted as a member of the applicant's economic unit (as well as a member of the custodial household's economic unit).

The main path continues with the third decision box on the second page: Do individuals in the household share income? Any individual who has income and does not share any of it with other household members is not included in the economic unit.

The outcome of this process is the size of the economic unit and the identity of its members. Note that, again, WIC staff are instructed to use their judgment in making the final decision on economic unit membership.

Once the economic unit has been determined, an action box is reached. The countable income of each member is determined and summed; this is the economic unit's income. The final decision box asks whether this income is less than or equal to 185 percent of the poverty level income for that size of economic unit. If "yes," the applicant is income-eligible for WIC; if "no," the applicant is not income eligible for WIC.

Example 3. State with Complex Procedures

The third example (figure 4-4) is a State with a complex procedure. This State has a large number of types of special cases (foster children, separated couples, persons who are temporarily absent from the household, households including persons other than parents and their children, children who are eligible for Medicaid, married minors, and children over age 18 who receive only food and shelter from their parents). The State accepts proof of enrollment in or eligibility for any of several programs (AFDC, Medicaid, Food Stamps, free/reduced price School Lunch), or enrollment as a county health department patient with a recent eligibility review as evidence of WIC income eligibility. This State also differs from those in the other examples in that the use of discretion or judgment is not specified at any point in the procedure.

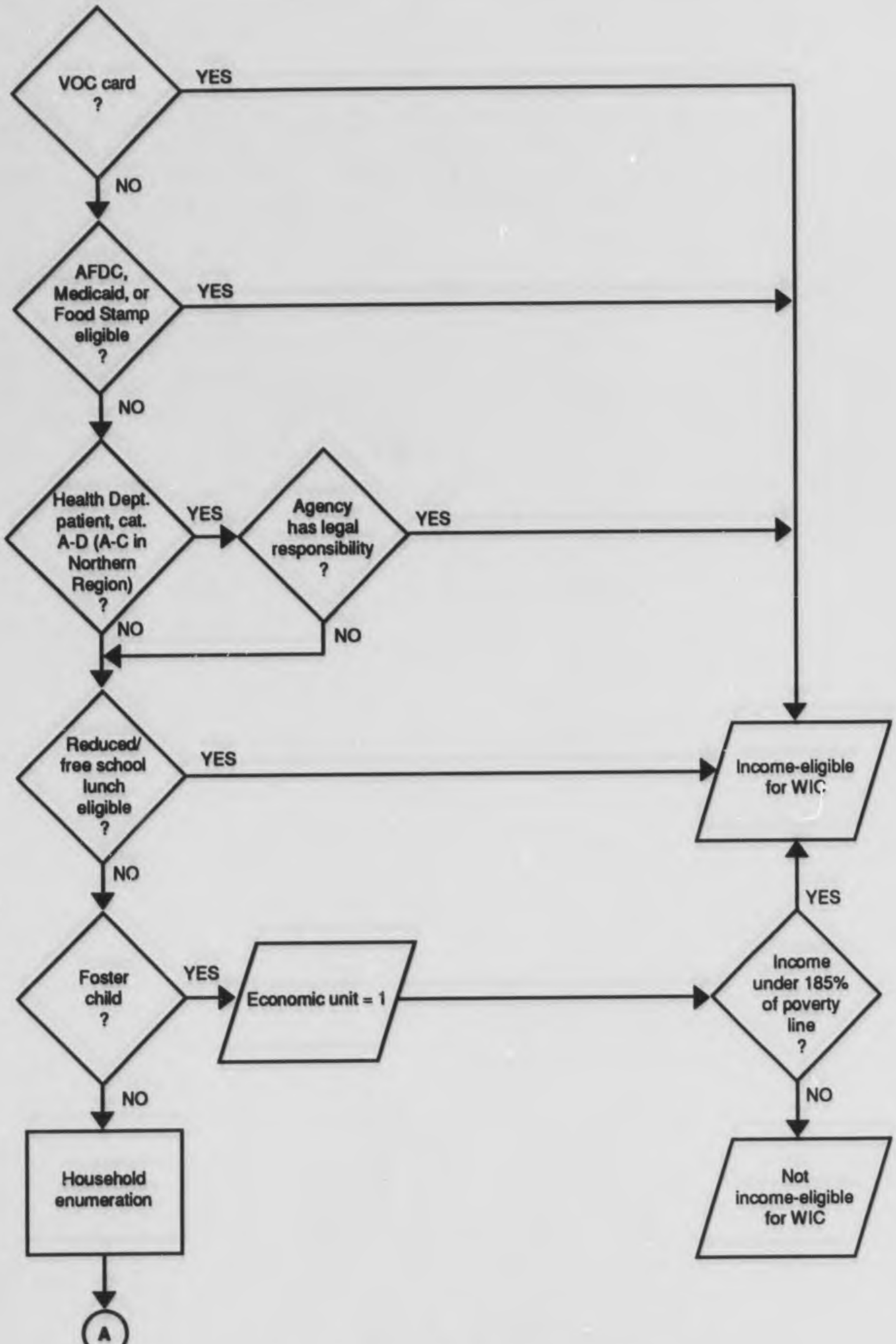
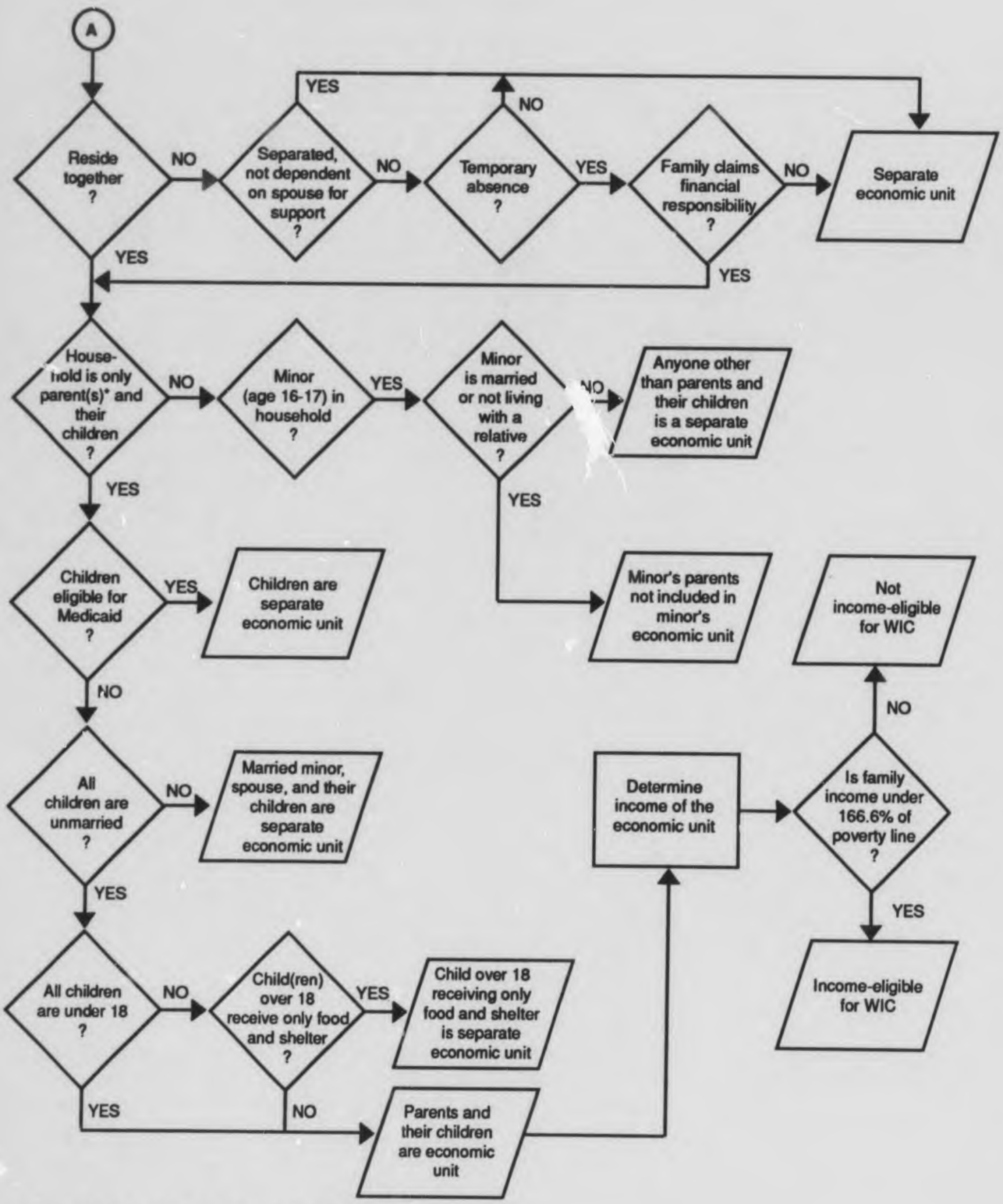


Figure 4-4. State with complex procedures.



*"Parent" includes a cohabiting partner included in the economic unit. Also includes a step-parent.

Figure 4-4. (continued)

As in the other States, the procedure begins with a determination of whether the applicant possesses a valid VOC card. If so, the applicant is automatically considered to be income-eligible for WIC.

The next three decision boxes ask about eligibility for AFDC, Medicaid, Food Stamps, and reduced price/free School Lunch, and enrollment as a health department patient in certain income categories. If the applicant is a health department patient, a sidepath is followed; if the applicant's last eligibility review was less than 6 months ago, income eligibility for WIC is presumed and the applicant need not go through the rest of the procedure. Note that for the other programs, eligibility for the program is specified rather than enrollment. Thus, if a WIC applicant presents recent evidence that AFDC has determined her to be eligible, that can be used as evidence of income eligibility for WIC even though the applicant has not yet started to receive AFDC benefits.

The last decision box on this page covers the special case of a foster child applicant. This is handled in the same way as in the other example States, except that this State does not specify that an agency must have legal responsibility for the child.

As in Example 2, the first page of the flowchart ends with an action box: enumeration of all members of the household. The second page begins with the same box to show the continuity of the procedure.

The first decision box on the second page asks whether all household members reside together. If "no," this is a special case and the sidepath to the right is followed.

If all household members reside together, the procedure continues along the main path with the second decision box on this page. This asks whether the household includes only parents and their children (with the definition of "parent" including cohabiting partners and step-parents). If the household includes anyone else, this is a special case and the sidepath to the right is followed.

If the household is composed only of parents and their children, the procedure continues along the main path with the next decision box. This box asks whether any of the children are eligible for Medicaid. If so, those children are separate economic units from their parents. The parents and any remaining children continue along the main path. The next decision box asks whether all of the children are unmarried. If "no," this is a special case and the married minor, his or her spouse, and their children are a separate economic unit from the rest of the household.

If all the children are unmarried, the next decision box asks whether all the children are under age 18. If not, this is a special case and the sidepath to the right is followed.

If all the children in the household are under 18, the outcome box at the bottom of the page is reached: The economic unit is the parents and their children. The next step in the procedure is represented by an action box; the income of the economic unit is determined. The final decision box, as in the other examples, asks whether that income is below the eligibility limit for that size of economic unit. If "yes," the applicant is income-eligible for WIC. If "no," the applicant is not income-eligible for WIC.

Summary Differences In State Procedures

Although the determination of economic unit membership in each State is a unique and integrated process, some insight into the types of approaches used by States can be gained by examining the distribution of certain characteristics. This section gives the numbers and percentages of States in the WIV sample by variables identified through reviewing State procedures.

Table 4-1 shows the distribution of these procedures across the WIV sample of States.

As the table reveals, the large majority of States use some form of presumptive eligibility, and all States have at least one special case procedure. Of the various special case procedures covered in the table, only four are used by the majority of the State agencies: Medicaid presumptive eligibility, special household definitions for foster children, emancipated minors, and students living apart.[2]

Table 4-1 covers only the most common variations. The variables are:

1. **Uses presumptive eligibility:** Presumptive eligibility involves presuming that an applicant meets the WIC income-eligibility requirements if the applicant is participating in another State-administered program that routinely verifies income and that has income-eligibility guidelines at or below those for WIC in that State. Use of presumptive eligibility is at the State agency's discretion.

Table 4-1. Distribution of Some Procedures for Determining Economic Unit Membership Across the 25 States in the WIV Sample[a]

Procedure	States (Number)	States (Percent)
Uses Presumptive Eligibility	21	84
Type of Presumptive Eligibility:		
Medicaid	16	64
AFDC	12	48
Food Stamps	10	40
School Lunch	5	16
SSI	2	8
Procedures Explicitly Include Discretion	4	16
Providing Food or Shelter Is Considered Sharing Income	2	8
Nonrelatives Always Excluded from the Economic Unit	4	16
Has Special Case Procedures	25	100
Type of Special Case		
Foster Child	23	92
Emancipated Minor	16	64
Student Living Apart	15	60
Institutionalized Person	9	36
Temporary Absence (Other Than Student)	4	16
Separate Economic Unit If Own Income (Even If Income Is Shared With Others	4	16

[a]The WIV sample inherited the PC88 sample of State agencies. At the State level, the sample was selected with probabilities proportional to number of participants. As a result, the results presented in this table do not directly translate into national estimates. We did not weight the results to reflect differential probabilities of selection because such weighting would have resulted in a few highly weighted cases dominating the results.

For States that do use presumptive eligibility, the number and percentage (out of all States in the sample) who use specific programs are listed.

2. **Procedures explicitly include discretion:** Some States have written procedures that specify points at which discretion is to be applied to a case. For example, after following the procedures for determining economic unit membership, the WIC staff might be instructed to use their professional judgment in making the final determination of economic unit membership.

3. **Providing food and shelter is considered sharing income:** Three of the sampled States have explicitly defined the provision of food and shelter either as sharing income or not sharing income. Thus, in two States, a minor living with her parents could be considered emancipated if she pays for all her own expenses except food and shelter.

4. **Nonrelatives always excluded from the economic unit:** Several States stipulate that no one who is not related to the applicant by blood or law (including marriage and adoption) is included in the economic unit.

5. **Has special case procedures:** This variable identifies those States that have developed specific procedures for special cases. The number and percentage (out of all States in the sample) of States with procedures for the main types of special cases are also given. These main types are:

   Child living with foster parents: The foster child is treated as an economic unit of one person, with the amount paid to the foster parents for the child's care constituting the economic unit's income. Most States specify that an agency or court is legally responsible for the foster child. This definition is consistent with FNS Instruction 803-3 (p. 4).

   Emancipated minor: This term is used here to refer to a minor (usually a woman applicant) who is considered to be a separate economic unit from her parents. This is not necessarily the same as legal emancipation. Various States have specified different conditions that must be met before the minor can be considered a separate economic unit. The suggestions given in FNS Instruction

803-3 that the minor may reside with her parents but must pay for any support she receives, including food and shelter, are followed by some States and contradicted by other States. Still other States have rules that bear little or no relation to the FNS guidance.

Student living apart: This phrase is used to mean students (sometimes specified as college students) who live apart from their parents but whose permanent residence is with their parents. The most common treatment of these special cases is to include the student in the parents' economic unit if the parents provide economic support to the student. This interpretation is consistent with FNS Instruction 803-3 (p. 4).

Institutionalized person: Persons who could be considered members of the household but who reside in institutions are another type of special case. Most States that have a procedure for these cases include the person if the economic unit contributes to the economic support of the person. This approach is consistent with FNS Instruction 803- 3 (p. 4). One State specifically excludes these persons from the economic unit, and two States list additional conditions for inclusion of the institutionalized person (besides support from the economic unit).

Temporary absence (other than student): Some States have rules for persons who normally reside in the household but are temporarily absent. Generally, only certain reasons for the absence are allowed, and the maximum length of the absence may be specified. This issue is not addressed by FNS Instruction 803-3, except for the specific case of a student.

Separate economic unit if own income is adequate (even if income is shared with others): A few States allow WIC staff members to determine that a person or group of persons living with the applicant is a separate economic unit if that person or group has its own source of income. The other requirement is that the income is assessed as adequate to meet the needs of that person or group. The economic unit can be determined to be separate even if its members share income with members of the other economic unit. This special case definition appears to arise from FNS Instruction 803-3, Revision 1 (p. 6).

In addition to the major types of special cases shown in the table, two States have developed detailed procedures for dealing with children under joint custody arrangements; one stipulates that a household member who is in prison is excluded from the economic unit, and two exclude roomers from the economic unit. One State includes a pregnant woman's fetus or embryo in determining the size of the economic unit.[3] The rules for emancipated minors are very detailed in some States; others have procedures that resemble those for emancipated minors but do not apply only to minors.

Many States' procedures show little logical unity. It appears that many of the special case procedures have arisen in response to particular cases. At least one State has established a special case procedure that cannot be applied, since the type of person to whom it is addressed is excluded from the economic unit at an earlier stage in the procedure.

Other States' special case policies clearly reflect a policy decision by the State. For example, the minor's parents may refuse to pay for prenatal care and adequate nutrition during her pregnancy, thus creating a need for WIC benefits; the State may have decided to meet that need.

Specifying procedures for special cases solves one problem; local agencies are more likely to treat special cases consistently if the State has an established policy. However, these procedures can also create problems.

Special case procedures produce economic units that are inconsistent across States. For example, in the States that exclude all nonrelatives from the economic unit, a pregnant woman living with her boyfriend would be an economic unit of one person, even if he were providing all her support. Another State, which uses income sharing as the main determinant of an economic unit, would include the boyfriend. In some States, a pregnant minor living with and supported by her parents would be classified as an economic unit of one person with no income, while in other States her parents could be excluded only if she had an income source of her own, and in still others the parents would always be included.

Special case policies also may have unexpected consequences. In one State with rules for emancipated minors, an emancipated minor who reaches the age of majority may become ineligible for WIC because the emancipated minor rules no longer apply and her parents are now included in her economic unit. This may or may not have been an intentional effect of the State's procedure.

Another possibly unintentional effect occurs in a State in which persons who share housing are considered one economic unit unless they meet very specific conditions, and sharing income or expenses is not a factor. This means that, for instance, a pregnant woman staying temporarily in the home of a friend who is well off financially would be ineligible for WIC, even if the woman pays for her own food, shelter, and all other expenses and her friend contributes nothing but the willingness to allow the woman to live there.

SUMMARY AND CONCLUSIONS

This chapter demonstrated that definitions and procedures for determining WIC economic unit composition vary fundamentally across WIC State agencies.

Within broad Federal guidelines, the basic definitions of economic unit vary. Different States define economic unit in terms of legal relationships, social relationships, residency, biological relationships, or economic relationships. Many of the definitions used are in basic contradiction.

In addition to these general definitions, State agencies employ one or more special case definitions in determining economic unit. Special case categories include emancipated minors, students living apart, institutionalized persons, foster children, and procedures for dealing with nonrelated persons living together. As with State general definitions of household, there is very little across-State consistency in special case definitions of economic unit.

Variations in definitions of economic unit reveal only the surface of across-State variations in income-eligibility determination procedures. State agencies also differ at a more fundamental level: how these definitions are operationalized in practice. No two States employ the same procedures for determining membership in economic unit; every State is unique.

Chapter 4 Notes

[1] Data were not available for this study on when the discretionary higher income standard was applied to a case. Because of this lack of an audit trail, in reviewing the in-home interview data to identify income-eligibility determination errors we were forced to use the most generous definition of income eligibility. In other words, whenever a site was allowed discretion on a case, we used the discretionary rule when it benefited the applicant and did not use it when it was disadvantageous to the applicant. If an audit trail had existed, we could have more accurately reconstructed the site's procedure for a case and applied discretion only when the site had correctly done so.

[2] The figures presented in table 4-1 represent the number and percent of States employing the various special procedures in determining income eligibility. We were unable to estimate the number and percentage of enrollees subject to the various procedures because of limitations in WIC recordkeeping discussed in chapters 2 and 3.

[3] This State has been authorized by FNS to establish a higher income limit for a pregnant woman since the State's WIC income standard is well below the 185 percent standard and so long as the income standard counting the fetus does not exceed the 185 percent income standard not counting the fetus.

5. INCOME OF THE WIC ECONOMIC UNIT

In chapter 4, we discussed the definition of the WIC economic unit. Having defined the economic unit, WIC eligibility is determined by counting the income of economic unit members and comparing their total income to the income-eligibility limits. In this chapter, we review definitions and findings relating to countable income and income-eligibility limits.

The chapter has five main sections:

A. **Countable Income.** In this section, we discuss WIC rules on what constitutes income for determining WIC eligibility.

B. **Income-eligibility Limit.** The second section reviews across-State differences in the income-eligibility limit.

C. **Income Characteristics.** The third section presents in-home audit data on the income distribution of WIC participants, their sources of income, and amounts of income from each source.

D. **Income Reporting Error.** The fourth section of the chapter compares reported income (as found in WIC case files) with verified income (based on information from the in-home audits).

E. **Income Change.** The final section compares income at the financial data reporting period (FDRP) with income partway through the certification period. Both income amounts are derived from the in-home audit.

COUNTABLE INCOME

Countable income is any income of the economic unit that is counted when determining WIC eligibility.

Federal regulations require that, in determining income eligibility, payments or benefits provided under certain Federal programs or acts are excluded from consideration as income by legislative prohibition. These programs include:

- Food Stamps
- the National School Meal Program
- the Home Energy Assistance Act Program
- monies from Student Financial Assistance under Title IV of the Higher Education Act (used to meet the costs of

attendance at an educational institution and not for room and board or dependent care expenses)

- Job Training Partnership Act[1]

- a variety of volunteer and special population programs (CFR 246.7(c)(2)(v)).

Beyond these specific exclusions, which always apply, States are given several areas of broad discretion in the definition of countable income. States may define countable income in one of two ways. First, a State **may** use the national school lunch reduced-priced meal income guidelines, in which case countable income is defined as gross cash income before deductions for income taxes, employees' social security taxes, insurance premiums, bounds, etc. Income includes the following:[2]

- monetary compensation for services, including wages, salary, commissions, or fees

- net income from farm and nonfarm self-employment

- Social Security benefits

- dividends or interest on savings or bonds, income from estates or trusts, or net rental income

- public assistance or welfare payments

- unemployment compensation

- government civilian employee or military retirement or pensions or veterans' payments

- private pensions or annuities

- alimony or child support

- regular contributions from persons not living in the household

- net royalties

- other cash income including, but not limited to, cash amounts received or withdrawn from any source including savings, investments, trust accounts, and other resources that are readily available to the family.

As an alternative to the reduced-price school lunch guidelines, a State may use State or local reduced-price health care income guidelines **provided** that the definition of income does not: (1) count the value of in-kind housing or other in-kind benefits and payments, (2) include any of the programs excluded by legislation, and (3) mean that counted gross income exceeds 185 percent of the Federal poverty guidelines.

A State may permit different local agencies within the State to use different guidelines, provided that the guidelines are the ones used by the local agencies for determining eligibility for free or reduced-price health care.

State Definitions of Income

In addition to State economic unit definitions, State definitions of countable income were reviewed for the 25 sampled State agencies. The countability of each income source listed below was determined from the State procedure manual; each State agency reviewed and confirmed the countability of each source. There is substantially less across-State variation in the definition of countable income than there is in the definition of WIC economic unit (see table 5-1).

As table 5-1 shows, States largely agree on which income sources are countable in WIC. The 12 income sources for which there is complete across-State agreement constitute 91.6 percent of all income in WIC households.

The four primary income sources on which State vary when defining countable income are nonmilitary housing subsidy, black lung benefits, financial aid for college, and loans. Altogether, these four sources account for 4.2 percent of total WIC economic unit income.

INCOME-ELIGIBILITY LIMIT

Federal regulations require that WIC income-eligibility guidelines be equal to or greater than 100 percent and less than or equal to 185 percent of the poverty line. Most States adopt the 185 percent limit. However, four States in our sample adopted a lower level. Three of the four defined their limits relative to the poverty line as 172 percent, 166.6 percent, and 150 percent. The fourth State set the limit at 185 percent of the poverty line for households that included a pregnant woman, and employed State income guidelines for reduced price health-care eligibility that were not directly tied to the Federal poverty guidelines for all other households.

INCOME CHARACTERISTICS

The next step is to describe the countable income of a WIC economic unit. It is important to remember, when reviewing this

Table 5-1. State WIC Agencies' Treatment of Income Sources

Income Source	Percent of State Agencies: Included	Excluded	Subject to Special Rules for Counting
Complete Agreement (100%)			
Wages and Salaries	100	0	0
AFDC	100	0	0
Child Support	100	0	0
Social Security	100	0	0
SSI	100	0	0
Unemployment Compensation	100	0	0
Support from Nonhousehold Members	100	0	0
Self-employment Income	100	0	0
Interest/Dividends	100	0	0
Survivor's Benefits	100	0	0
Pension/Retirement	100	0	0
Alimony			
General Agreement (80-100%)			
Workers' Compensation	96	4	0
VA Compensation	96	4	0
Rental Income	96	0	4
Other Disability Payments	92	8	0
Prize Winnings	92	0	8
Other[a]	84	12	4
Savings Withdrawal	84	12	4
Disagreement (Less than 80%)			
Housing Subsidy	72	12	16
Black Lung Benefits	76	16	8
Loans[b]	32	64	4
Student Financial Aid	8	48	44

[a]Refers to any income source other than those listed in this table.
[b]FNS Instruction 803-3, Revision 1 (April 1, 1988), specifically excludes loans from being counted as income since such money is only temporarily available and must be repaid.

section, that the definitions of countable income and economic unit varied with the participants' State of residence.

Table 5-2 displays the distribution of the income of WIC enrollees' economic units at enrollment relative to the poverty line.[3] As can be seen, the WIC population is predominantly drawn from the lowest end of the income distribution. Twenty-six percent of the WIC households have incomes (as verified in the in-home audit) of under 50 percent of the poverty level. Altogether, about 60 percent of the WIC households live in poverty. The median income of WIC households is 80 percent of the poverty line.

Income by Source

Column 2 of table 5-3 presents the frequency of income sources for WIC households or economic units. These data are from the in-home audits and represent the countable income of the economic unit; as noted above, not all of these income sources are considered countable in all States (see table 5-1). The only income source shared by the majority of households is wage and salary income (62.7 percent). After wages and salaries, the only common income source is AFDC, which is received by 26.4 percent of WIC households.

Column 3 of table 5-3 presents the percent of total WIC household income by source. Again wage and salary income dominates. This is because wages and salaries are not only the most frequent source of income, but they also have the highest median monthly amount.

Together, wages, salaries, and AFDC account for 84 percent of all income of WIC households. The remaining 16 percent is spread over a large number of income sources.

INCOME REPORTING ERROR

This section concerns errors in reported WIC economic unit income. We define an income error as the difference between the income amount reported in the WIC case file[4] and the income verified during the in-home audit for the same time period. Understanding income reporting error requires keeping in mind two important distinctions. First, income reporting error does not directly translate to eligibility error. As we shall demonstrate below, only a small minority of the income reporting errors resulted in the incorrect certification of an applicant as eligible for WIC benefits. Second, our definition of error should be kept in mind: We did not declare an error unless there was a clear violation of State regulations; if an applicant could be considered eligible within the allowable discretionary range for that State, we did not consider the applicant ineligible.

Table 5-2. Income Distribution of WIC Enrollees Relative to Poverty Index

Percent of Poverty Index	Percent of WIC Enrollees	Cumulative Percent
0 - 50	25.7	25.7
51-100	33.9	59.6
101-150	25.5	85.1
151-185	9.6	94.7
186-200	1.4	96.1
201-250	2.6	98.7
251-300	1.0	99.7
Over 300	0.3	100.0

Table 5-3. WIC Economic Unit Income Sources

Income Source	Percent of Enrollees' Households with Source[a]	Percent of Total WIC Income
Wages and Salaries	62.7	74.5
AFDC	26.4	9.8
Child Support	9.3	1.5
Housing Subsidy	6.9	2.1
Social Security	3.8	1.6
SSI	3.0	0.8
Unemployment Compensation	2.5	1.0
Savings Withdrawal	2.5	0.7
Other Disability Payments	2.5	1.1
Support from Nonhousehold Members	2.1	0.4
Workers' Compensation	2.0	1.3
Self-Employment Income	1.4	1.2
Loans	1.1	1.8
Interest/Dividends	1.0	0.0
Foster Child Payments	1.0	0.3
Rental Income	0.9	0.4
Survivor's Benefits	0.6	0.3
VA Compensation	0.5	0.2
Black Lung Benefits	0.4	0.2
Pension/Retirement	0.2	0.2
Alimony	0.2	0.3
Student Financial Aid	0.2	0.1
Prize Winnings	0.2	0.0
Other	4.5	0.8

[a]The table includes only income counted by the local WIC agency in determining income. Excluded income is not presented. The table also includes only income of members of the enrollee's economic unit, as defined by the State agency.

Table 5-4 presents the difference in monthly income for WIC economic units between the income reported in the WIC case file and the amount verified during in-home audits. On average, these audits took place about 5 months after certification or recertification.

In table 5-4, underreporting refers to cases for which the income from the WIC case file was lower than the income from the in-home audit; since the in-home audit was the measure of "actual" income in this study, for these cases the income reported at certification was lower. Overreporting refers to cases for which case-file income was higher than the verified in-home audit income.

The table reveals substantial reporting error. With correct reporting defined as reported monthly income within $50 of verified income, only 35.7 percent of enrollees correctly reported income. The remaining 64.4 percent of enrollees erroneously reported their economic unit's income.

Forty-three percent of WIC enrollees had reported incomes at enrollment of $51 a month or more below the verified income from the in-home audit. That is, using the same definition of income and the same time period, the in-home audit found higher income than recorded in WIC certification files for 43 percent of enrollees.[5] Substantial underreporting of $500 or more a month occurred in about 15 percent of the cases.

Income overreporting estimates require special comment. As explained above, we did not declare an income certification error unless there was a clear violation of State rules. If it was within the allowable range of local agency discretion to exclude an income source or a high income individual in the household, the exclusions were made. Therefore, an unknown portion of income overreporting may consist of differences in the use of discretion in defining income and economic unit composition.

Because most WIC case files do not include detailed information on income by household member, we were unable to provide data on income reporting errors by type of income.

INCOME CHANGE

The in-home audit collected data on WIC enrollee income for two points in time. The first point was the FDRP, and the second point was the month before the in-home audit. In most cases, this was 4 or 5 months after the FDRP. Data from the second time period were used to estimate income change among the WIC population

Table 5-4. Income Reporting Error

Difference Between In-home Audit and WIC Records (Dollars)	Percent of Enrollees
Income Underreported	
51-150 Underreported	10.9
151-250 Underreported	6.5
251-500 Underreported	10.0
500+ Underreported	15.2
Total Underreported	42.6
Correct Reporting	
Within +/-50	35.7
Income Overreported	
51-150 Overreported	5.6
151-250 Overreported	6.4
251-500 Overreported	3.7
500+ Overreported	6.1
Total Overreported	21.8
Total	100.0

and to estimate the amount of ineligibility arising from income changes. In this section, we are concerned only with the first topic, income change. In appendix F, we will consider how income change relates to eligibility.

Table 5-5 displays the distribution of income change among WIC enrollees from FDRP to time of in-home audit. The table shows that about 55 percent of enrollees had stable income over the 4 to 5 month period following certification or recertification (11.3 percent with a small increase and 43.8 percent with no change or a small decrease), with "stable" income defined as no change or a change of less than $100 per month. On the other hand, approximately 19 percent of the sample experienced a significant income change of $500 or more per month. Of these, 10 percent had an increase and 9 percent a decrease in income.

SUMMARY AND CONCLUSIONS

Definitions of countable income in WIC show relatively little across-State variation. For the major income sources, accounting for more than 90 percent of WIC economic unit income, there was no across-State variation.

The in-home audits found WIC enrollees to have a very low income distribution. Sixty percent of the households have incomes under 100 percent of poverty; 95 percent have incomes at or below the allowable 185 percent Federal income poverty guidelines; and 26 percent of enrollees have incomes under 50 percent of the poverty line. Overall, the median WIC economic unit income was 80 percent of the poverty line.

Seventy-five percent of total WIC economic unit income was derived from wages and salaries and another 10 percent from AFDC. The remaining 16 percent was distributed across 25 other income sources.

A substantial amount of income reporting error was found by comparing income reported at certification with income for the same period as verified by the in-home audits. Forty-three percent of WIC enrollees had reported incomes of $51 or more below their verified incomes. Substantial income underreporting (reported monthly income of $500 or more below verified income) occurred in about 15 percent of the cases.

The next chapter consolidates the income and economic unit information from chapters 4 and 5 to examine income-eligibility error in the WIC program.

Table 5-5. Income Change Among WIC Enrollees

Amount of Change in Monthly Income (Dollars)	Percent of Enrollees
Income Increase	
1 to 99	11.3
100 to 499	15.4
500+	10.3
Total Increase	37.0
Income Decrease	
0 to 99	43.8
100 to 499	10.5
500+	8.7
Total Decrease	63.0
Total	100.0

Chapter 5 Notes

[1] Wages earned in jobs obtained through the Job Training Partnership Act, however, are counted in determining income.

[2] The WIV in-home audit included all these income sources broken out in greater detail, plus all other income sources reported as counted in any State. See the WIV Questionnaire (appendix B); the income sources are listed below questions 48 and 49.

[3] Income data were collected during the in-home audit for the financial data reference period (FDRP). The FDRP refers to the period used by the person certifying the WIC applicant to determine income. In most cases, the FDRP was the month immediately preceding certification. Depending on State and local procedures and the particulars of the individual enrollee, FDRP's could be based on annual income, expected income, or a variety of other income reference periods.

[4] Data on amount of income reported in the WIC case file was obtained from the PC88 participant record abstraction form (PRAF), described in chapter 3.

[5] Cutting points for the range of what constitutes correct reporting versus error are of course arbitrary. A narrower range for the definition of correct reporting, such as plus or minus $10, would result in a higher error estimate. Conversely, a wider range, such as plus or minus $100, would result in a lower estimate. Use of the $50 range is based on traditional standards employed in Food Stamps, AFDC, and Medicaid (although Food Stamps has at times used a $25 range). The main point of table 5-4 does not lie in the specific range defined as "correct reporting" but in the distribution of income reporting error. Regardless of category definitions, the table makes clear that income reported at WIC certification does not well adhere to verified income.

6.

WIC INCOME-ELIGIBILITY ERROR

EXTENT AND NATURE OF INCOME CERTIFICATION ERROR

In this chapter, we will be concerned with the extent and nature of income-eligibility error in WIC. We are using two primary definitions of error:

- **Certification error.** The certification error rate is the percent of WIC enrollees who are enrolled in violation of the prevailing income-eligibility standards.[1]

- **Dollar error.** The dollar error is the amount of WIC food funding that is spent on individuals having a certification error.

Table 6-1, discussed below, summarizes the discovered error rates and frequencies for certification and dollar errors. The methods used to develop these estimates also are reviewed.

The chapter is organized in five main sections. Following this introductory section, there are two sections that present the methods by which we developed the error rates in table 6-1. The next two sections discuss the certification error rate and the dollar error rate, respectively. We address in the next section the question of why the WIC eligibility error rates are so low compared to those found in other social welfare programs. In the last section, we consider characteristics of enrollees associated with error. Alternative definitions of error are considered in appendix F.

It should be emphasized that the approach taken to errors in income-eligibility determination was one-sided. In this study, we defined error as occurring when applicants who are ineligible are enrolled in WIC. The other side of eligibility error, denial of WIC benefits to applicants who are income-eligible, was not measured in this study. The study design selected by FNS precluded measurement of "denial error."

The fact that we were unable to measure denial error should not be taken to imply that this or other related types of error are unimportant. Attention to the problem of denial error is critical when considering alternative methods of preventing or lowering ineligibility rates. It is entirely conceivable that attempts to reduce certification error will, in some cases, increase denial error and pose other difficulties.[2]

Table 6-1. WIC Income-eligibility Error

	Error Type	
	Certification (Percent)	Dollar (Percent)
Error Rate	5.7	5.8
95 Percent Confidence Interval	3.8 - 7.6	3.9 - 7.7
	(Enrollees)	(Millions of Dollars)
Frequency	214,000	84
95 Percent Confidence Interval	143,000 - 285,000	56 - 112

CERTIFICATION ERROR RATE

In chapter 3, we presented the procedures by which the results of the in-home audits were translated into an error rate. Steps described as 7 through 10 provided the basis for inferences about certification error in the total WIC enrollee population. Briefly, these steps included:

- **Conduct Independent Determination of Income Eligibility**. Results of the in-home audits provided the basis for an independent determination of WIC income eligibility by a project staff member. The determinations were made on the basis of applicable State and local eligibility standards. When those standards allowed discretion on the part of the professional determining eligibility, the choice was always made in favor of the applicant.[3]

- **Perform Computer Edit Review**. Computer routines were written that compared State eligibility standards to the size and income of the enrollee's economic unit, as determined by the project staff member, to produce an eligibility determination. Computerized determinations were used to detect errors in the eligibility determinations made during the preceding step.

- **Conduct Case Reconciliation**. For all cases initially identified as having errors in the preceding steps, a rereview was conducted. A second coder, who was trained and experienced in WIC eligibility procedures, independently reviewed the entire case file.

- **Perform Enrollee Reconciliation.** An attempt was made to contact by telephone all cases found in error in the preceding step and all cases where inadequate data precluded an eligibility determination. Respondents were asked to aid us in understanding discrepancies between income and household size data from their WIC file and data obtained during the in-home audit.

We used the results of the in-home audits to make inferences about the total WIC enrollee population. Procedures used to weight the sample to make such inferences were described in chapter 3 and appendix A.

We are 95 percent confident that the national WIC income-eligibility error rate at certification falls between 3.8 and 7.6 percent, with the most likely value at 5.7 percent. In terms of total enrollees, this translates to a total number of ineligible enrollees between 142,000 and 285,000 (with the most likely number 214,000) out of a total enrollee population of 3.7 million during the sampling period. In the absence of eligibility error, the WIC program would be able to serve an additional 214,000 income-eligible individuals not presently receiving services.

DOLLAR ERROR RATE

Dollar error is defined in terms of the cost of WIC food benefits provided to individuals who were certified in error. Determination of the dollar error requires knowledge of the level of participation of enrollees certified in error and the cost of participation. As explained in chapter 3, the in-home audit sample was nationally representative of enrollees, not participants. Therefore, while certification error rates could be estimated directly from survey results, dollar error rates could not. To overcome this limitation, the sample was weighted to reflect enrollees' level of participation.

Participation Weights

A WIC enrollee is an individual who is enrolled in the WIC program for a period of time. WIC participants are a subset of WIC enrollees; an individual enrollee who participates in the WIC program by receiving WIC supplemental foods is a participant. On the whole, the percent of WIC enrollees who participate in the program is directly related to time since certification. Table 6-2 shows the percent of enrollees by months of participation. As can be seen from the table, 61.8 percent of the sampled WIC enrollees received supplemental food for all 6 of the months following certification or recertification. The remainder participated for 5 or fewer of those months.

These data were obtained from PC88 for the WIV sample of enrollees. In order to adjust the enrollee sample to reflect the national WIC participant population, PC88 tracked the sampled enrollees' level of participation for 6 months. The enrollee sample was then weighted to represent their participation level. For example, an enrollee who participated for 6 months was given a weight equal to twice the weight of an enrollee who participated for 3 months.[4]

Application of the participant weights resulted in the estimate that, during any given month, 5.8 percent of all *participants* were income-ineligible at certification.

The dollar cost of providing services to participants who were income-ineligible at certification was defined as the cost of food benefits provided. Food package costs vary by participant category and State. However, the study found no statistically significant difference in error rates by participant category, and we

Table 6-2. Number of Months of Participation During the 6 Months Following Certification or Recertification

Months of Participation	Percent of Enrollees
1	1.2
2	4.0
3	4.3
4	12.4
5	16.3
6	61.8

were unable to stabilize State-specific error rates. Therefore, dollar costs were estimated as the number of months during which supplemental food was provided to ineligible participants times the average monthly food package cost per participant. In turn, the average monthly cost per participant was defined as the total Federal WIC food package budget divided by the total number of participant months of benefits provided. The number of participant months was defined as the sum across all participants of the total number of months for which the participant received supplemental food. The total Federal WIC food package budget was based on Final 1988 Fiscal Year food grants to States.

These definitions were operationalized by the equations:

$$\text{Dollar Error Rate} = \frac{\sum_{i=1} (W_i \times E_i)}{\sum_{i=1} W_i}$$

$$\text{Dollar Error Amount} = \frac{\sum_{i=1} (W_i \times E_i) \times D_{1988}}{\sum_{i=1} W_i}$$

where:

W_i = participant weight. Participant weight is the enrollee sampling weight times the number of months the enrollee was issued food vouchers during the 6-month period PC88 tracked the sample.

E_i = eligibility error indicator, taking a value of 1 if there is an eligibility error and 0 otherwise.

D_{1988} = total Federal WIC food grant to State agencies for FY 1988.

Based on these definitions we estimate that 5.8 percent of WIC food dollars are spent on providing benefits to ineligible enrollees for a total of $84 million. An additional dollar error is associated with the cost of providing nutritional education and is discussed in appendix F.

The dollar error rate should not be confused with dollar loss. This is because WIC is a grant program and not an entitlement. Therefore, the costs associated with the dollar error rate in WIC are not technically dollar losses to the Federal Government, but opportunity costs associated with not serving the maximum possible number of potentially eligible individuals. For every ineligible program enrollee the program serves, there is one potentially eligible individual not served. In any event, the finding shows that $84 million were spent in FY 1988 on providing benefits to ineligible enrollees.

COMPARISON WITH OTHER PROGRAMS' INCOME-ELIGIBILITY ERROR RATES

Across-program comparisons suggest that the WIC program's eligibility error rates appear very low. For example, the National School Lunch program, which has a similarly income-eligibility process, has an eligibility error rate of 11.1 percent. The Food Stamp, AFDC, and Medicaid programs, which have dissimilar eligibility determination processes from WIC, all have error rates of over 7 percent of benefits paid.[5]

The latter programs were able to achieve this level of error only after substantial effort. For example, considerable effort has been invested in welfare information and quality control systems to date. Income certification procedures for these programs use a wide variety of techniques to prevent eligibility errors. For example, applicants for Food Stamps in San Francisco are subject to two rounds of extensive interviews on income eligibility. All information provided is verified by cross-checks with credit bureaus; State wage files; State welfare files in Medicaid, Food Stamps, and AFDC; IRS unearned income files; State income tax files; property tax files; motor vehicle registration files; unemployment compensation records; Social Security benefit files; lottery winning files; prior county welfare recipient files; and employer and bank contacts.

These procedures have high associated costs. Administrative costs for Food Stamps averaged $21.42 per month per recipient in 1986. A high percent of the costs were associated with maintaining the income-eligibility standard. Administrative costs are even higher for AFDC and Medicaid, which averaged $44.00 and $94.31, respectively, in 1986.[6]

The findings show that WIC has been able to achieve a much lower income-eligibility error rate than several other major social welfare programs while relying on only very simple income determination procedures. In the following section, we address the question of how this is possible.

INCOME REPORTING ERROR AND ELIGIBILITY ERROR

The discussion to this point leads us to confront a significant paradox: WIC has simultaneously simple income certification procedures,[7] a very high income reporting error rate,[8] and a relatively low certification error rate. The question then becomes, "Why don't simple certification procedures and the high income reporting error rate translate to a high certification error rate?" Our investigations found three general answers to this question:

1. the low income distribution of WIC enrollees

2. the continued eligibility during certification period in spite of unreported income change

3. the lack of detailed case-file support for many eligibility decisions.

These are discussed in turn.

Low Income Distribution of WIC Enrollees

In chapter 5, we noted that the median income of WIC economic units is 80 percent of the poverty level. Further, 85 percent of WIC economic units have verified income below 150 percent of the poverty level. In other words, very few WIC recipients have incomes near the eligibility line.

Given this very low income distribution, even relatively large amounts of income underreporting seldom result in ineligibility. Table 6-3 shows the ineligibility rates by amount of income underreporting. As can be seen from the table, the large majority of those who underreport are eligible.[9] Even among those who underreport their monthly income by $500 or more, three-quarters (73.5 percent) are eligible. Those who underreport their monthly income by less than $300 have extremely low eligibility error rates--less than 2 percent.

This finding has several important implications. The finding shows that the relatively low income-eligibility error rate in WIC is not a function of formal income screening at WIC clinics since it is unlikely that the level of certification review varies uniformly with income level; it is a function of the very low income of individuals who apply for WIC. This can be inferred from two facts. First, as we demonstrated in chapter 5's section on "Income Change," WIC income determination procedures fail to obtain full income reporting 42 percent of the time. Therefore, the procedures used are not generally effective in obtaining accurate data. Second, WIC agencies that attract higher income enrollees also have a much higher income-ineligibility rate. This suggests that when high income is present, the WIC income screening procedures are

Table 6-3. Ineligibility Rate by Amount of Income Underreporting

Monthly Income Underreported (Dollars)	Certification Error Rate (Percent)
0 - 99	0
100 - 299	1.3
300 - 499	9.7
500+	26.5

($p < 0.05$)

not effective in detecting it. The seven local agencies in the sample with median enrollee income of $1,000 or higher per month had an average certification error rate of 14 percent. Overall, the certification error rate increases 1.2 percent for every $100 increase in median income ($r = 0.25$, $p < 0.05$). What is true of local agencies in aggregate is also true of individual enrollees. Enrollees who report monthly incomes of $2,000 or more have a certification error rate of 23 percent, four times the program average.[10]

One answer to the question posed above ("Why don't simple certification procedures and the high income reporting error rate translate to a high certification error rate?") is simply that applicants to WIC are almost exclusively in low-income households.

In any event, WIC is highly vulnerable to income ineligibility because the current income screening methods do not ensure complete and accurate income reporting. As discussed earlier, an upward shift in the income distribution of WIC applicants could result in major increases in the ineligibility rate.

Continued Eligibility During Certification Period in Spite of Income Change

We noted at the beginning of this report that the WIC program has as its goal to improve the nutrition of at-risk women, infants, and children. To this end, WIC attempts to both directly reduce the nutritional and medical risks of participants through food supplements and to improve their nutritional knowledge and habits through nutrition education. The standard certification period for each category of participant is viewed as the minimum necessary time to achieve these goals. Therefore, changes in income during the certification period are not generally grounds for disqualification.

Unreported income change is a major source of error for social welfare programs that provide income support. According to Federal guidance, mid-certification income changes for WIC enrollees do not affect benefits unless the change comes to the attention of the local agency. If the WIC program policy changed, so that those enrollees whose income increases during the certification period to exceed the eligibility standard were considered ineligible, the WIC program's income-eligibility error rate would increase from 5.7 to 11.2 percent.[11]

Lack of a Documented Basis for Many Eligibility Decisions

The final reason that the high income reporting error in WIC does not translate into a high ineligibility rate is the lack of a documented basis for many eligibility decisions.

Inherent in the research methodology used for this study was the principle that errors were only declared where there was a clear violation of program regulations. For decisions made within the discretionary range of the WIC certification site staff, no error exists. Operationally, this principle means that all cases that were found to fall within the gray area of WIC staff discretion (potentially either eligible or ineligible) were declared eligible.

A more complete set of documentation on how and why decisions were made would doubtless have found procedural errors in some of these cases. For example, one State had an income-eligibility threshold of 172 percent of poverty except in cases of "special need" as determined by the local clinic. In cases of special need, the income-eligibility threshold became 185 percent of poverty. There are no standards for determining special need, no documentation requirement, and no audit trail. Given our methodology, all sampled cases in that State found to have income above 172 percent of poverty but below 185 percent were declared eligible because such a decision was within WIC staff discretion. However, it is possible that some of the cases with income above 172 percent had not been found to have a special need by the local clinic but rather had underreported income. In such instances, more complete case-file information would have revealed procedural errors.

One can only speculate on how much error in the application of the rules would be found by improved case-file documentation. Experience in other programs suggests that the inability to determine the specific basis for an eligibility decision can mask a significant amount of procedural error.

Two interpretations of the discovered error rate are possible in the absence of completed case-file documentation. The first is that the discovered error rate is the lower bound of the "true" underlying error rate. Under this definition, application of the wrong rule to a case is considered an error, even if the applicant is eligible under another rule. In other words, errors in the procedure by which eligibility was determined are included in the definition of eligibility error. The second interpretation was the one used in the WIV project: An error in income-eligibility determination is defined as the certification of an applicant in violation of program regulations or rules. Under this second interpretation, any decision within allowable discretionary bounds is, ipso facto, error free. Even lacking knowledge of the specific basis for individual decisions (and thus lacking data on procedural errors), it was possible in the study to detect any rule violations. In this study, therefore, the unknown amount of procedural error has no effect on the income-eligibility error rate.

Finally, a fourth issue---**the single level of benefits awarded in WIC**---although not specifically tied to the degree of certification error, is instructive in addressing the question of low dollar error. Most social welfare programs, such as AFDC or Food Stamps, calibrate the level of benefits to the level of income. The amount of benefits received falls with each additional dollar of income. Programs with a continuum of benefits experience a type of error not possible in WIC, the overissuance of benefits to eligible recipients.

CHARACTERISTICS ASSOCIATED WITH ERROR

The purpose of the income standard in WIC is to target program benefits to those most in need. Currently, only about 46 percent of those potentially eligible for WIC are receiving benefits.[12] In this environment, participation of income ineligibles in WIC represents a diversion of resources from those most in need.

Prior sections of this chapter were concerned with estimating the extent of income ineligibility. In this section, we address the issue of the nature of the resource diversion: What are the characteristics of the population receiving WIC benefits for which they are not income-eligible?

Income Distribution of Ineligible Enrollees

Table 6-4 presents the verified income distribution of ineligible WIC enrollees at the time of certification. As can be seen from the table, approximately 11 percent of the ineligible enrollees have incomes below 185 percent of the poverty line. These individuals reside in States where the eligibility standard is set below the normal standard; they would be considered eligible if they resided in other States. Ineligible enrollees are not high income individuals.

It is important to note that this table is based only on ineligible enrollees in the sample. Because sample subgroups are very small, we have included unweighted sample sizes in the table.

Table 6-5 presents the "current" income distribution of ineligible WIC enrollees relative to the income-eligibility standard. "Current" income was defined as income in the month before the in-home audit; this was generally 3 or 4 months into the certification period. The table includes the surprising finding that approximately half of all individuals who were income-ineligible at certification met the income standard later in their certification period.

The number of sampled participants in Head Start, School Lunch, School Breakfast, Summer Meals, Low Income Energy Assistance Program, Social Security, Social Security Disability, Black Lung,

Table 6-4. Income Distribution of Ineligible WIC Enrollees Relative to Poverty Index

Percent of Poverty Index	Percent of Ineligible WIC Enrollees	Cumulative Percent	Sample Size (Unweighted)
0 - 50	0	0	0
51 - 100	0	0	0
101 - 150	0	0	0
151 - 185	10.9	10.9	7
186 - 200	22.8	33.7	12
201 - 250	44.7	78.4	27
251 - 300	17.3	95.7	7
Over 300	4.3	100.0	4

Table 6-5. Income of Ineligible WIC Enrollees After Certification Relative to Income-eligibility Standard

Current Income as a Percent of the Eligibility Standard	Percent of Ineligible Enrollees	Sample Size (Unweighted)
Become Income-eligible		
0 - 50	12.5	7
51 - 100	32.4	17
Total	44.9	24
Remain Income-ineligible		
101 - 150	48.5	27
151 - 200	3.5	3
201 - 250	1.9	1
251 - 300	1.1	1
Over 300	0.0	0
Total	55.1	32
Total	**100.0**	**56**

and other social welfare programs was too few to produce meaningful error rate estimates.

Table 6-6 shows that no statistically significant difference in error rates exists across racial/ethnic groups, household sizes, and participant categories. On the other hand, those reporting relatively high household incomes and the presence of wage income have significantly higher than average error rates. Table 6-7 shows that WIC enrollees who participate in other social welfare programs (Food Stamps, AFDC, Medicaid, and Temporary Emergency Food Assistance Program) have lower ineligibility rates than nonparticipants in these other programs.

The strongest predictors of eligibility are living in a household with no wage income, having low reported income, and participating in Food Stamps, Medicaid, or TEFAP. (Being an emancipated minor, participating in AFDC, having low education, and being unmarried are also associated with eligibility, but these estimates are likely to be unstable.) This set of findings is not at all surprising. Income eligibility is determined by income. Low income in the American economy is associated with unemployment, welfare participation, minority racial or ethnic status, and being in a household with an unmarried female head of household.

Table 6-6. Certification Error Rates by Enrollee and Household Characteristics

Characteristic	Statistical Significance	Percent Ineligible at Enrollment
Racial/Ethnic Group	0.6	
White		7.2
Black		5.3
Hispanic		3.2
Other		a
Household Size	0.6	
0-2		7.2
3		5.0
4		6.3
5		6.4
6+		4.5
Education of Mother	0.1	
Not High School Graduate		4.2
High School Graduate or More		7.0
Married	0.3	
Yes		10.6
No		4.2
Emancipated Minor	0.06	
Yes		4.8
No		6.4
Reported Monthly Income at Certification or Recertification (Dollars)	0.005	
0		6.8
1-499		0.0
500-999		3.2
1,000-1,999		10.9
2,000+		23.7
Participant Category	0.9	
Woman		6.3
Infant		5.4
Child		5.6
Wage Income	0.001	
Yes		9.1
No		0.3

[a]Sample size too small to produce stable error estimate.

Table 6-7. Certification Error Rates by Participation in Other Social Welfare Programs

Program	Statistical Significance	Percent Ineligible at Enrollment
Food Stamps	0.0001	1.4
AFDC	0.08	2.5
Medicaid	0.004	1.5
TEFAP	0.05	2.6
Total Enrollees		5.7

Chapter 6 Notes

[1]We include in the certification error rate both errors that occur at initial certification and those at recertification.

[2]For a particularly relevant example, see *Study of Income Verification in the National School Lunch Program, National Survey Final Report,* Abt Associates, 1989 (in preparation); and D. Finnegan, *Income Verification Pilot Project; Results of Quality Assurance Evaluation 1982-83 School Year,* 1984, Applied Management Sciences.

[3]It should be emphasized that use of prevailing State and local income-eligibility standards does not imply consistency of these standards with all applicable regulations nor imply Federal approval of the standards.

[4]The procedure of sampling enrollees rather than participants and then tracking them for 6 months to allow approximation of participant characteristics was inherited by WIV from the PC88 sample design. We recognize that not all participants are certified for a 6-month period. In particular, infants are commonly certified as eligible until their first birthday--a certification period of up to 1 year. However, ratio adjustments used to approximate the national distribution of participants by participant category should largely control for this problem.

[5]*Food Stamp Quality Control Annual Report, Fiscal Year 1987*, FNS Quality Control Branch; and *Study of Income Verification in the National School Lunch Program; National Survey Final Report,* Abt Associates, 1989 (in preparation).

[6]*Study of Funding for Nutrition and Program Administration in the WIC Program*, FNS Office of Analysis and Evaluation, 1989.

[7]The very complex across-State variations in definitions of economic unit should not be confused with complexity of income *verification* procedures.

[8]Nearly two-thirds (64.4 percent) of all enrollees erroneously report their economic unit's income; see chapter 5's section on "Income Reporting Error."

[9]Several Project Advisory Panel members commented that, in their experience, much of the income underreporting we observed was motivated by applicants' beliefs that WIC maintained a much tighter income standard than is in fact the case. These panel members believed that if applicant's were made aware of the income standard in use, there would be less income underreporting. The project's research design did not provide a means to test this hypothesis.

[10]This finding is presented in detail in conjunction with Table 6-6 found on page 6-16.

[11]See appendix F for the derivation of this estimate and a more detailed discussion of the relation of income change and eligibility.

[12]*Estimation of Eligibility for the WIC Program, Update of the WIC Eligibility Study of 1986*, Food and Nutrition Service, USDA.

7.

ENROLLEES' ABILITY TO MEET INCOME VERIFICATION REQUIREMENTS

CURRENT STATE AND LOCAL PRACTICES

Practices Reported by Agencies

Questions were added to the 1988 Participant Characteristics (PC88) State and Local Agency Questionnaires to ascertain the main income verification methods then in use. The three main methods used by the sampled State agencies were:

- **Local variation:** State policy is self-declaration, but some local agencies request or require documents.

- **Documentation requested:** All local agencies ask for income documentation. However, an applicant who does not provide income documents can be certified (either for the usual certification period or for a 30-day "grace period," with termination at the end of the grace period if documents are not submitted by then).

- **Documentation required:** All local agencies require income documents for certification and recertification.

None of the States in the sample relied exclusively on self-declaration of income. Enrollees were distributed across the State agencies in the sample as shown in table 7-1.

Local agencies used similar methods, except that local agencies used either self-declaration, documentation requested, or documentation required ("local variation" is not an option at the local level). We also asked whether presumptive eligibility was used by the local agency.

Because of limitations in sample size and design, we were unable to determine whether or not any State or local agency variable, including income verification method, was associated with income certification error.

Practices Reported by Enrollees

Respondents were asked about the income verification procedures they experienced at intake. The intention was to

Table 7-1. Percent of WIC Enrollees by State Agency Income Verification Methods

State Agency Income Verification Method	Percent of Enrollees
Local Variation	18.4
Documentation Requested	15.2
Documentation Required	66.4

Table 7-2. Percent of WIC Enrollees by Local Agency Income Verification Methods

Local Agency Income-eligibility Determination Method	Percent of Enrollees
Self-declaration	16.4
Documentation Requested	31.4
Documentation Required	52.2
Uses Presumptive Eligibility	58.1

check the policies reported by the State and local agencies against the actual procedures used.

An apparent measurement problem was noted: More enrollees reported being asked for income documents than agencies reported asking for documents. According to the Local Agency Questionnaire, 16.4 percent of the enrollees were sampled from local agencies using self-declaration. However, a minimum of 28.6 percent of the sampled enrollees from each local agency reported that income documents were requested. We speculated that respondents misunderstood the term "income documentation" to include the self-declaration procedure where they were asked about income but not required to show documentation such as pay stubs. Because of these problems, the results presented for the variable "Asked for Income Documents" in table 7-3 below should be considered unreliable.

For the 83.2 percent who reported that they were asked for income documents, table 7-4 shows which income documents were requested (or required) and whether the applicant actually presented them or not.

ENROLLEE CAPACITY TO RESPOND

Enrollees' ability to comply with documentation requirements was explored. The results show that most enrollees think they could comply with expanded documentation requirements.

Again, reviewers should be cautioned that the estimates of the percentage of enrollees who report that they could document all income may be inflated. Many respondents may have taken this question to mean, "Could you provide information on all income?"

Table 7-3. Percent of Enrollees by Reported Income Verification Procedures Used at Certification

Enrollee-reported Income Verification Method	Percent of Enrollees
Asked for Income Documents	
Yes	83.2
No	16.8
Ask for Nonincome Documents	
Yes	60.2
No	39.8
Asked for Social Security Number	
Yes	72.9
No	27.1
Asked for Another Household Member's Social Security Number	
Yes	51.2
No	48.8

Table 7-4. Documentation Procedures Used for WIC Enrollees Who Reported That Documentation Was Requested

Documentation Procedure	Enrollees (Percent)
Asked for Documents for All Adults	
Yes	82.7
No	17.3
Asked for Documents for All Income Sources	
Yes	80.7
No	19.3
Showed Documents	
Yes	92.3
No	7.7
If Yes: When Documents Were Shown	
Day of Application	98.4
Other	1.6

Table 7-5. Percent of Enrollees Capable of Complying with Alternative Documentation Requirements

Ability to Comply	Enrollees (Percent)
Could Document All Income	
Yes	93.5
No	6.5
Could Provide Social Security Numbers for All Household Members	
Yes	94.9
No	5.1
Could Name Employer or Social Worker for Each Adult in Household	
Yes	97.6
No	2.4

8.

STUDY CONCLUSIONS

The WIC Income Verification (WIV) project was a two-phase evaluation of participant income-eligibility determination procedures in USDA's Special Supplemental Food Program for Women, Infants, and Children (WIC). The primary goal of the project was to estimate the income-ineligibility rate on a nationwide basis both as a percentage of WIC enrollees and total program dollars. The study did not examine the source (i.e., participant or institutional) or the Nation (i.e., deliberate or unintentional) of the certification error.

In Phase I of the project, the State procedures currently in use to guarantee that program benefits are restricted to individuals who are income-eligible were studied. Phase II of the project centered on the WIC Income Verification (WIV) survey. The WIV survey collected verified income information on a nationally representative sample of WIC enrollees. Results of the survey were used to establish a national WIC income-ineligibility rate.

The WIV survey sample was exclusively drawn from respondents to the 1988 study of WIC Participant and Program Characteristics (PC88). The WIV sample contained 25 States,[1] 41 local agencies, 72 clinics, and 1,076 participants. The survey achieved an 85-percent response rate for a final sample size of 884 respondents.

The sample enrollees were interviewed in their homes, and data were abstracted from their clinic case files.[2] The type of interview conducted is known as an "in-home audit"; these are personal interviews combined with detailed income documentation reviews. The in-home audits covered four primary topics: income, household composition, demographic characteristics of participants, and ability to respond to income verification requirements. Data from the in-home audits were used to determine WIC enrollee income eligibility. The verified income from the in-home audit was also compared to the reported income from the case file to determine income reporting error.

INCOME-ELIGIBILITY ERROR

Income is one of the three types of eligibility criteria that must be met in order to enroll in the WIC program. The applicant must also be at nutritional risk and be categorically eligible as a pregnant, breastfeeding, or postpartum woman, infant, or child up to the age of 5 in order to receive WIC benefits. The WIV survey was primarily concerned with the extent and nature of income-eligibility error in WIC. The survey used two primary definitions of error:

- **Certification error.** The certification error rate is the percent of WIC enrollees who are enrolled in violation of the prevailing income-eligibility standards.[3]

- **Dollar error.** The dollar error is the amount of WIC food funding that is spent on individuals having a certification error.

The dollar error rate should not be confused with dollar loss. That is, in a technical sense the cost—dollar loss—to the Federal Government is actually independent of the rate of ineligibility. This is because WIC is a grant program and not an entitlement. Under the current level of grant funding, WIC does not serve all potentially eligible individuals. Therefore, the costs associated with the dollar error rate in WIC are not dollar losses to the Federal Government but opportunity costs associated with not serving the maximum possible number of eligible individuals. For every ineligible program enrollee served by the program, there is one eligible individual not served.

Table 8-1 summarizes the discovered error rates and frequencies for certification and dollar errors. The table shows that we are 95-percent confident that the national certification error rate is between 3.8 and 7.6 percent, with the most likely single number estimate at 5.7 percent. This translates into a total number of ineligible enrollees from 143,000 to 285,000—at the 95-percent confidence level—with 214,000 as the best single estimate of the number of ineligible enrollees. This number of ineligibles is out of a total certified population of 3.7 million.[4] Similarly, we estimate that 5.8 percent of program food dollars are spent to provide benefits to ineligibles for a total of $84 million out of a total Federal program expenditure of $1.5 billion in FY88.[5]

It should be emphasized that the approach taken to errors in income-eligibility determination was somewhat one-sided. In this study we defined error as occurring only when applicants who were ineligible were enrolled in WIC. Because of methodological constraints, the study could not examine the errors associated with the denial of benefits to potentially eligible WIC applicants. This type of error--denial error--represents the other side of the coin in ineligibility studies. Attempts to lower certification or recertification error rates can produce serious, unintended barriers that can lead to high initial denial error rates or discourage continued program participation.

VARIATIONS IN STATE POLICIES AND PROCEDURES

Results of the in-home audits provided the data for an independent determination of WIC income eligibility by project staff. The determinations were made on the basis of applicable

Table 8-1. WIC Income-eligibility Error

	Error Type	
	Certification (Percent)	Dollar (Percent)
Error Rate	5.7	5.8
95 Percent Confidence Interval	3.8 - 7.6	3.9 - 7.7
	(Enrollees)	(Millions of Dollars)
Frequency	214,000	84
95 Percent Confidence Interval	143,000 - 285,000	56 - 112

State eligibility standards.[6] Therefore, a major effort of the project was directed toward the determination and comparison of State eligibility standards.

Procedures for the determination of income eligibility vary considerably across WIC State agencies. Income-eligibility determination generally involves comparing the reported size and income of the applicant's economic unit to the income-eligibility standard. An in-depth review of the income-eligibility policies and procedures for the 25 sampled State agencies revealed that each State employed a unique set of policies and procedures. The degree of variation in these policies and procedures was a major study finding. Variations occurred in four primary areas: (1) definition and operationalization of "economic unit," (2) definition of "economic unit income," (3) amounts of allowable income (income-eligibility guidelines), and (4) income verification and documentation procedures and standards.

Economic Unit

The study found that within broad Federal guidelines definitions and procedures for determining WIC economic unit composition vary fundamentally across WIC State agencies. Different States define economic unit variously in terms of legal relationships, social relationships, biological relationships, economic relationships, or residency. As a result, some households eligible to participate in one State would be ineligible to participate in a neighboring State. Examples of within-State definitional inconsistencies were also identified. These inconsistencies were generally the result of conflicts between instructions developed for diverse special cases.

In addition to these general definitions, all sampled State agencies employ one or more special case definitions in determining economic unit. Special case procedures include methods for determining eligibility for emancipated minors, students living apart from their parents, institutionalized persons, foster children, and procedures for dealing with nonrelated persons living together. As with State general definitions of household, there is very little across-State consistency in special case definitions of economic unit.

Figure 8-1 presents the five most common types of special case procedures used by States. As can be seen, the only types of special cases addressed by the majority of State agencies are foster children, emancipated minors, and students living apart.

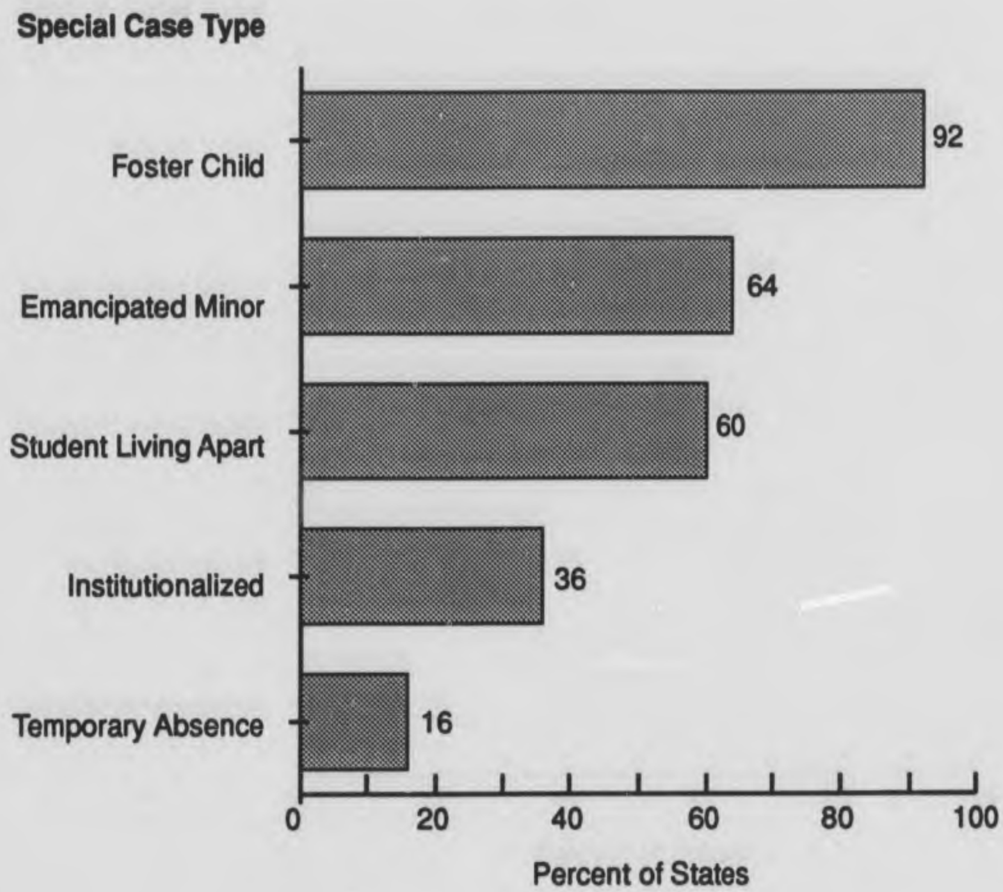


Figure 8-1. Percent of States using special case procedures.

Variations in definitions of economic unit reveal only the surface of across-State variations in income-eligibility determination procedures. State agencies also differ at a more fundamental level: how these definitions are operationalized in practice. No two States employ the same procedures for determining membership in economic unit; every State is unique. Major sources of variation are whether and how the State ties WIC eligibility to eligibility in other programs (presumptive eligibility), explicit use of local discretion in eligibility determination, treatment of nonrelatives in determining the economic unit, and methods for determining whether income is shared.

Countable Income

Countable income is any income of the economic unit that is counted when determining WIC eligibility. There is substantially less across-State variation in the definition of countable income than in the definition of economic unit. WIC enrollee income predominantly comes from wages and salaries (75 percent of total WIC enrollee income), AFDC (10 percent), child support (2 percent), and Social Security (2 percent). All four of these income sources were counted in determining income in all sampled States.

OTHER FINDINGS

Income Characteristics of WIC Households

The WIC population is predominantly drawn from the lowest end of the Nation's income distribution. Almost 95 percent have incomes under the allowable 185 percent Federal income poverty guideline. Sixty percent of the households have income under 100 percent of poverty. Twenty-six percent of the WIC households have verified income under 50 percent of the poverty level. The median income of WIC households is 80 percent of the poverty line. Figure 8-2 presents the income distribution of WIC enrollees as a percent of poverty level.

Income Reporting Error

The WIV survey found substantial differences between income data as reported in the WIC case files, and income as verified by the in-home audits.

Figure 8-3 presents the difference between the monthly income reported on enrollment forms and the amount verified during in-home audits.

Forty-two percent of WIC enrollees underreported their income; that is, they had reported incomes of $50 a month or more below the income verified during the in-home audit. Substantial

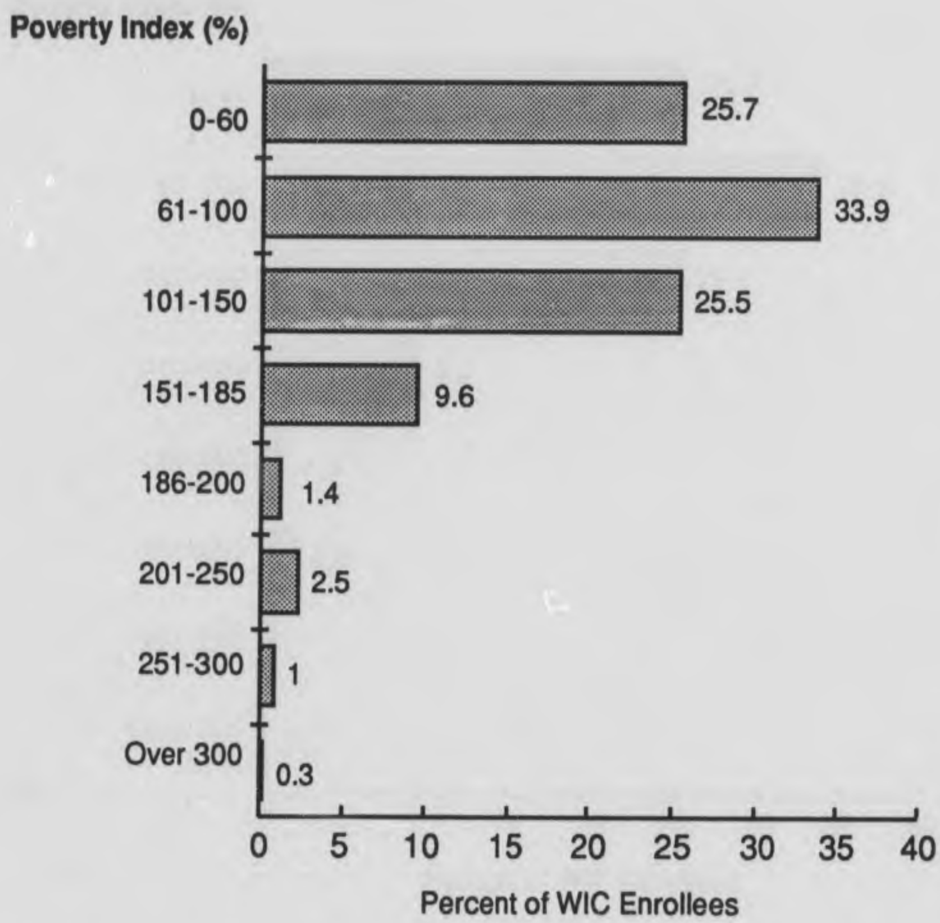
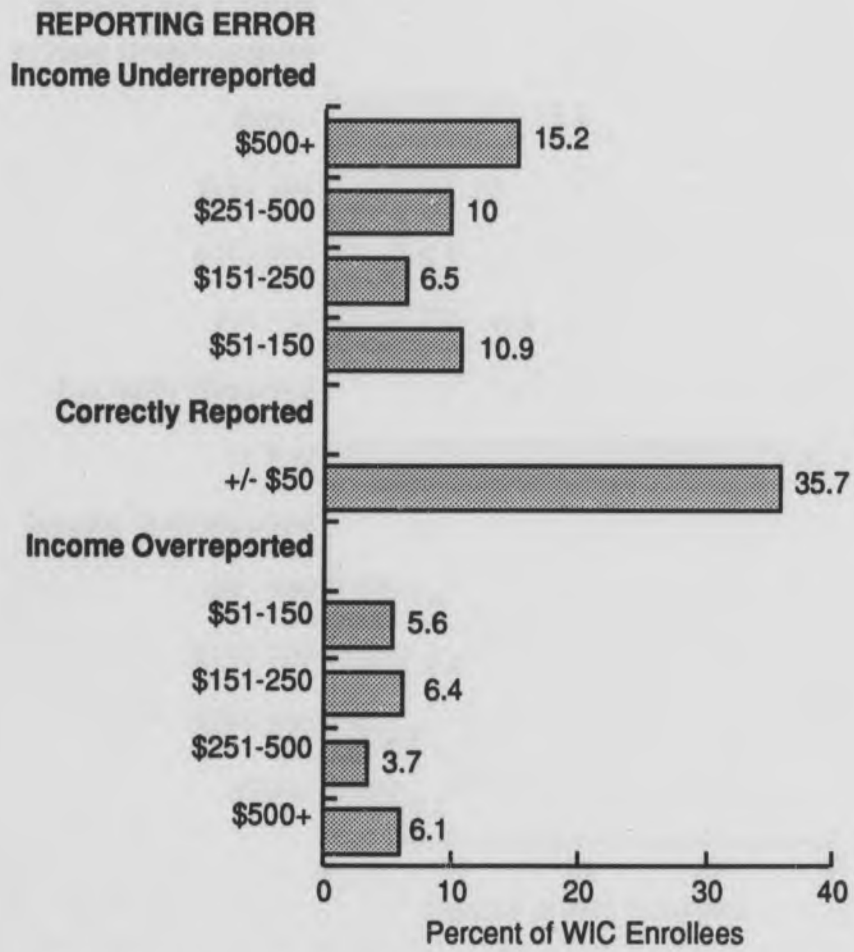


Figure 8-2. Income distribution of WIC enrollees as a percent of poverty level.



Note: Income reporting error is the difference in monthly income between in-home audit findings and WIC records.

Figure 8-3. Income reporting error.

underreporting of $500 or more a month occurred in over 15 percent of the cases.

Comparison of figures 8-2 and 8-3 presents a significant paradox: WIC has simultaneously a very low certification error rate and a very high income reporting error rate. The question then becomes, "Why does the high income reporting error rate not translate to a high certification error rate?" Our investigations found three general answers to this question:

1. **The low income distribution of WIC enrollees.** The verified median income of WIC economic units is 80 percent of poverty. Further, 85 percent of WIC economic units have verified income below 150 percent of poverty. Given this very low income distribution, even relatively large amounts of income underreporting seldom result in ineligibility because very few WIC recipients have incomes near or over the eligibility line.

2. **The continued eligibility during certification period in spite of income change.** A major source of error for most social welfare programs is unreported income change. In 18 out of 25 of the State WIC programs surveyed, midcertification income changes would have no practical effect on benefits because these States allowed continued eligibility through the certification period regardless of income changes. The WIC participant eligibility error rate would increase from 5.7 to 11.2 percent if all WIC State agencies declared ineligible those participants whose income increased during the certification period to exceed the eligibility standard.

3. **The lack of detailed case-file support for many eligibility decisions**. The final reason that the high income reporting error in WIC does not translate into a high ineligibility rate is the lack of detailed case-file support for many eligibility decisions. Inherent in the research methodology used for this study was the principle that errors were only declared where there was a clear violation of program regulations. For decisions made within the discretionary range of a WIC worker with no supporting case-file data, no error was found to exist. Operationally, this principle means that all cases that were found to fall within the gray area of WIC worker discretion (potentially either eligible or ineligible) were declared eligible.

Finally, a fourth issue--**the single level of benefits awarded in WIC**--although not specifically tied to the degree of certification error, is instructive in addressing the question of low dollar error. Most social welfare programs, such as AFDC or Food Stamps, calibrate the level of benefits to the level of income. The amount of benefits received falls with each additional dollar of income. Programs with a continuum of benefits experience a type of error not possible in WIC, the overissuance of benefits to eligible recipients.

Chapter 8 Notes

[1] Indian agencies were excluded from the sample because of substantial differences in income determination issues and procedures. Thus, the national estimates from the WIV survey apply only to enrollees served by the 50 States and the District of Columbia.

[2] Case-file abstraction was conducted as part of PC88.

[3] We include in the certification error rate both errors that occur at initial certification and those at recertification.

[4] Based on the preliminary FNS enrollment estimate for October FY88 of 3,777,283.

[5] Total FY88 WIC food expenditures of 1,435,363,000.

[6] State and local agency procedures were derived from a review of State plans and procedure manuals, policy memoranda, clarifications, and individual discussions with WIV project staff. Of these sources, only State plans and procedure manuals have been FNS-approved.

APPENDIX A:

SAMPLE DESIGN AND VARIANCE

A.

SAMPLE DESIGN AND VARIANCE

This appendix addresses several technical issues related to sampling error not covered in chapter 3:

- sample weighting procedures
- sample variance estimation procedures
- design effects for variables other than ineligibility rate
- total sample response rates.

SAMPLE WEIGHTING PROCEDURES

Sampling weights were required in the analysis of the survey data to account for the varying probabilities of selecting a State agency, a local agency, or a participant into the sample. Generally, a sampling weight is equal to the reciprocal value of the probability that the sampling unit is included in the sample. The sampling weight may be thought of as the number of similar units in the population that the sample member represents. Use of the weights in analyzing the data made possible valid inferences about the entire population.

Joining the study with PC88 greatly increased the complexity of sample weighting. Sampling weighting required a 28-step process that replicated the probability structure of PC88; adjusted for nonresponse in PC88; backed out the subsampling structure of WIV; adjusted for nonresponse in WIV; and made multiple-level ratio estimates to the State and national participation levels.

Merging of the PC88 sample and the WIV sample required that sample weights take into account the structures of both samples. To follow the standard language of such "double samples," we refer to the initial PC88 sample as the "Phase I" sample and the WIV subsample as the "Phase II" sample.

The Phase II sample adopted the essential characteristics of the Phase I sample at all levels. All non-Indian State agencies in Phase I were included in WIV. Therefore, probabilities of selection for States were identical for the two phases. Within selected States, Phase II subsampled local agencies from Phase I with a fixed probability of 0.1887. Within selected local agencies, Phase II included all sites sampled as part of Phase I, for local agencies selected once. For local agencies selected more than once in Phase I, Phase II subsampled two sites. Finally, within sampled sites, Phase II subsampled all Phase I participants.

The following sections present the weighting methodology. Each State and local agency selection or "hit" is considered as a separate sampling unit for weight construction. Thus, large States appear multiple times in the calculations. (PC88 had multiple hits for some large local agencies. However, there were no multiple hits of local agencies in WIV.)

State Agency Weights

State agency weights were derived from the OSPF file prepared as part of PC88. Because the Phase II subsample included all State agencies in Phase I (including multiple hits), the sample weights were identical to those in PC88.

Local Agency Weights

The first step in obtaining the local agency weights was to calculate the State agency selection probabilities or expected hits for the large State agencies. Under the sampling plan, these figures were calculated by the equation

$$\Pi_i = n_i X_i / X_+ \ ,$$

where n_i is the number of State agency selections made, X_i is the State size measure, and X_+ is the sum of all State agency size measures. Because all Phase I State agencies were included in Phase II, these probabilities were identical for both phases.

The second step was to determine the conditional probability that a local agency is selected for the sample, given that its State was selected. This figure is expressed by

$$\Pi_{j|i} = n_2 X_{ij} / X_{i+} \ ,$$

where n_2 is the number of local agencies selected in Phase I per State selection, X_{ij} is the size measure for the j-th local agency in State i, and X_{i+} is the sum of local agency size measures for State i. We then obtained the unconditional value by

$$\begin{aligned} \Pi_{ij} &= \Pi_{j|i} \Pi_i \\ &= n_i n_2 X_i X_{ij} / X_+ X_{i+} \ . \end{aligned}$$

Finally, the local agency sampling weight for local agency ij was

$$\begin{aligned} w_{ij} &= 1 / \Pi_{ij} \\ &= X_+ X_{i+} / n_i n_2 X_i X_{ij} \ . \end{aligned}$$

Explicitly, the analysis weight for a cooperating local agency in the m-th WIC region was

$$w^*_{ij} = (N_m / \sum_i \sum_{j \varepsilon Rm} w_{ij}) w_{ij}$$

where N_m is the number of local agencies in WIC region m and the summation extends over all cooperating local agencies in region m.

Phase II preserved the agency-level sampling structure of Phase I. The subsampling probability within that structure was a fixed value, v. Therefore, the local agency sample probability will be vw_{*ij}.

Individual Weights

The enrollee sample for both phases was drawn from persons enrolled during the 12-week data collection period. However, FNS was interested in describing the characteristics and income eligibility of all WIC participants. For this reason, the sample developed the individual weights in three steps. First, weights were constructed to expand the sample up to the population of all persons certified during the 12-week period. The initial weights were then adjusted to reflect the distribution of the entire WIC program; these adjusted weights were called the enrollee weights. The third step was to adjust the enrollee weights to reflect the participant population.

Enrollee Weights

The enrollee weights were constructed using the local agency analysis weights, the selection probabilities of the sites, and the site-specific enrollment sampling rates. The conditional probability of selecting the k-th site given that local agency j in State i has been selected is

$$\Pi_{k|ij} = n_3 X_{ijk} / X_{ij+} \ ,$$

where n_3 is the number of sites selected from local agency ij, X_{ijk} is the size measure for site ijk, and X_{ij+} is the sum of all size measures for sites within local agency ij. The site-specific sampling rate for the g-th category is defined as f_{gijk}. With these quantities, the enrollee sampling weight for the p-th certificant in category g from site ijk is

$$w_{gijkp} = w^*_{ij} / \Pi_{k|ij} f_{gijk} \ ,$$

where w^*_{ij} is the analysis weight for local agency ij. The above weight is defined for all responding persons.

To obtain the Phase II enrollee weight, we adjusted for subsampling probabilities at the local and enrollee level.[1]

To make the sample of enrollees from a 12-week period resemble a snapshot of the WIC program, the study ratio adjusted the weights to the March 1988 counts of all enrollees obtained from the State Agency Questionnaire (SAQ) and Local Agency

Questionnaire (LAQ) telephone follow-ups. The ratio adjustment made the weighted distribution (and estimates of total numbers of enrollees) of the sample match that of the March 1988 enrollee data from the LAQ and SAQ follow-ups and compensated for individual nonresponse to the survey. This method of adjusting the weights to March 1988 counts was equivalent to the commonly used demographic method of direct standardization for population comparisons.

The proper weight for the p-th person in category g and region/priority group c from site k in local agency j of State i is

$$w^{*}_{gijkp} = \left(M_{gc} / \sum_{i}\sum_{j}\sum_{k}\sum_{p \in c} w_{fijkp}\right) w_{gijkp} ,$$

where M_{gc} is the total number of enrollees in category g and region/priority group c and the summation runs over all persons in region/priority group c from category g.

The identical set of equations applies to Phases I and II. The only difference between the two phases is in the sampling probabilities.

SAMPLE VARIANCE ESTIMATION PROCEDURES

The primary goal of WIV was to establish a national income ineligibility rate for WIC. Therefore, we defined the expected precision of the study in terms of the precision of that estimate. The confidence intervals presented in chapter 3 were based on the precision of the eligibility error rate estimate. In this section, we review the procedure used for developing this estimate and present precision estimates for additional variables.

Adopting Cochran's notation,[2] we can define the sampling variance of the income verification survey in terms of components of variance as:[3]

$$V(\bar{y})_2 = (1 - f_1)S_1^2 / n + (1 - f_2)S_2^2/nm +$$

$$(1 - f_3)S_3^2/nmk + (1 - f_3)S_4^2/nmkl$$

where:

- n = number of State agencies sampled from a universe of State agencies, N
- m = number of local agencies sampled per State agency from an average number of total local agencies per sampled State agency of M
- k = number of sites sampled per local agency from an average number of sites per sampled local agency of K

l = number of participants sampled per clinic from an average number of participants per sampled clinic of K

f_1 = n/N

f_2 = m/M

f_3 = k/K

f_4 = l/L

S_1^2, the estimated across-State variance = $\sum_{i=1} (Y_i - Y)^2/(N-1)$

S_2^2, the estimated across-local variance =

$$\sum_{i=1} \sum_{j=1} (Y_{ij} - Y_i)^2 / [N(M-1)]$$

S_3^2, the estimated across-clinic variance =

$$\sum_{i=1} \sum_{j=1} \sum_{u=1} (Y_{iju} - Y_{iju})^2 / [NM(K-1)]$$

S_4^2, the estimated across-participant variance =

$$\sum_{i=1} \sum_{j=1} \sum_{u=1} \sum_{v=1} (Y_{ijuv} - Y_{ijk})^2 / [NMK(L-1)] .$$

DESIGN EFFECTS

The compexity of the variance equations above, relative to the diversity of the analysis, required a simplified method for estimating confidence intervals and statistical significance tests. To this purpose we developed estimates of sample design effects. The design effect is a measure of the ratio of the actual sample size to the effective sample size. The effective sample size, in turn, is defined as the sample size that would have been necessary to achieve the same level of precision if a simple random sample had been employed. A design effect of less than one indicates that the sample design is more efficient than a simple random sample. A design effect greater than one indicates that the design is less efficient than a simple random sample. Use of design effect estimates allows the rough application of statistical techniques developed for simple random samples to more complex sample designs.[4] Table A-1 presents the estimated design effects for a number of key survey variables.

Table A-1. Design Effects for WIV Sample Variables

Variable	Design Effect
Household Size	1.6
Reported Income	4.0
Certified by Piggybacking	2.4
Education	3.0
Marital Status	3.0
Receive SSI	2.4
Employed	3.5
Sample Weight	7.4
Certification or Recertification	2.1
Document Requested	2.9
Receive Food Stamps	2.2
Receive TEFAP	2.1
Receive Medicaid	2.0
Receive School Lunch	2.7
Income-Eligible	1.7

The high design effect (see table A-1) for sample weight was to be expected because weights were largely determined at the State and local levels.

TOTAL SAMPLE RESPONSE RATES

Table A-2 presents the basic sample design. Final sample weights were the cross-product of table elements. Four elements of the table ($P_{R|E}$, $P_{WR|R}$, $P_{AV|WR}$, and $P_{IHA|AV}$) represent nonrandom probabilities of survey response. Because the values associated with these probabilities are not random, it is here that issues of nonresponse bias arise. The response rates for each of these values were generally high. The overall response rate for PC88 was $P_{R|E} = 0.86$. Of those responding to PC88, over 90 percent were included in the WIV sample base, $P_{WR|R} = 0.91$. Of the WIV sample base, over 90 percent could be located for the WIC survey, $P_{AV|WR} = 0.92$. Finally, the WIV survey itself had an 86 percent response rate for $P_{IHA|AV} = 0.86$.

While the response rates were high at all sample stages, there is reason to be concerned about the cumulative effect of the multiple points of sample loss. The cumulative effect was a low total response rate. The total response rate can be defined as the product of the four terms: 0.86 * 0.91 * 0.92 * 0.86 = 0.62.

Procedures used to detect potential response bias were presented in chapter 3. Table A-3 presents total response rates by WIC participant category.

Table A-2. Summary of All Stages of the Sample Design

Symbol	Selection Level	Random	Selection Mechanisms	Data Source
P_S	Probability of Selection of State Agency	Y	Probability Proportional to Enrollment	PC88 Sample Weight File
$P_{L\|S}$	Probability of Selection of Local Agency Within a Selected State	Y	Probability Proportional to Enrollment	PC88 Sample Weight File
$P_{WL\|L}$	Probability of Selection of Local Agency by WIV Given Selection of the Agency by PC88	Y	Constant Probability and Random Selection	WIV Sample File
$P_{A\|WL}$	Probability of Selection of a Site by PC88 Within a WIV Selected Agency	Y	Probability Proportional to Enrollment	PC88 Sample File
$P_{WA\|A}$	Probability of Selection of a Site by WIV Given the Site was Selected by PC88	Y	Constant Probability and Random Subselection	WIV Sample File
$P_{E\|WA}$	Probability of Selection of Enrollee in Selected Site	Y	Random Probability Conditioned on Enrollment Category and Sequence in Selection Period	PC88 Site Probability File
$P_{R\|E}$	Probability of Completed Response to PC88 Given Enrollee Selected by PC88	N	Unknown; Probabilities Determined at the Local Agency by Participant Category	PC88 Local Agency Reports
$P_{WR\|R}$	Probability of Completed Response Is Forwarded to WIV by PC88	N	Unknown; Sources of Losses Include Refusal to Allow Follow-up, State and PC88 Failure to Forward; Probabilities Determined at Local Agency Level	PC88 Case Tracking Files
$P_{AV\|WR}$	Probability That PC88 Respondent Could Be Located by Time of WIV	N	Unknown; Determined by Individual Respondent Life Conditions	WIV Case Tracking File
$P_{IHA\|AV}$	Probability of Completed In-home Audit Given WR	N	Unknown; Nonresponse Analysis Found no Systematic Biases	WIV Case Tracking File
W_{EP}	Weight of Enrollee to Reflect Level of Participation	NA	Based on Observed Number of Months Sampled Enrollee Participated	PC88 Follow-up Files
R_{SR}	Ratio Adjustment to State and Regional Participation Totals	NA	Ratio Adjustment by Participant Category	Federal Participation Files

Table A-3. Total Survey Response Rates by Participant Category

Category	Response Rate
Pregnant Woman	0.52
Breastfeeding Woman	0.70
Postpartum Woman	0.61
Infant	0.66
Child	0.58
Total	0.62

Appendix A Notes

[1] No adjustments were required for the State and service site levels because the subsampling probabilities are 1 at both levels.

[2] W. Cochran, *Sampling Techniques*, Wiley, New York, 1978, p. 287.

[3] To make the equations tractable, we have ignored efficiency gains due to stratification and probability proportional to size sampling because PC88 did not provide us with sufficient data for estimating these gains. As a result, the precision estimates are likely to be conservative.

[4] For a discussion of design effects and necessary cautions on their use, see Kish, L., 1965, *Survey Sampling*, John Wiley, New York, pp. 257-59 and 575-78.

APPENDIX B:

IN-HOME AUDIT QUESTIONNAIRE

OMB No.:

Expires:

WIC Income Verification Study

In-Home Interview Questionnaire

Conducted for:

Office of Analysis and Evaluation
Food and Nutrition Service
U.S. Department of Agriculture

Survey conducted by:

Westat Inc.
1650 Research Blvd.
Rockville, MD 20850

As part of a study conducted in affiliation with:

Quality Planning Corporation
1700 Broadway, 7th Floor
Oakland, CA 94612

Draft: 5/31/88

FACE SHEET

Date: ___________

ID Number: __ __ __ __ __ __

PC88 ID Number: ____________

WIC Participant's Name: ______________________________________

Respondent's Name (if different): ____________________________

Relationship to Participant: _________________________________

Address: ____

____

Telephone Number: (____) ____ - ____

Primary Contact Person's Name: ______________________________

Address: ____

Telephone Number: (____) ____ - ____

Other Contact Person's Name: ________________________________

Address: ____

Telephone Number: (____) ____ - ____

Participation Based on: ____ Certification ____ Recertification

Date of Certification/Recertification: ____________

Financial Data Reference Period (FDRP): ________________

Local Agency: ____

Clinic: ____

Participant Category:

___ Pregnant Woman

___ Post-partum Woman

___ Breastfeeding Woman

___ Infant (up to 1 year old)

___ Child (1 to 5 years old)

Is respondent under 18?

___ Yes; ask Parent for verbal consent to adolescent's interview in initial phone call

___ No

Participant Age: ___ years

INTRODUCTION AT DOOR:

Hello, my name is ________, and I am working on a study for Westat, a research firm located in Rockville, Maryland. Here is my identification card. (SHOW BADGE) I have an appointment to interview (RESPONDENT'S NAME).

Time Started: |__|__| : |__|__| a.m. / p.m.

Date of Interview: __ __ / __ __ / __ __
M M D D Y Y

READ TO RESPONDENT:

(As I mentioned to you by telephone) We are conducting research for the Food and Nutrition Service of the U.S. Department of Agriculture. I'd like to ask you some questions about your household. We are interviewing people who receive benefits from WIC, the Food Program for Women, Infants, and Children. Do you have the letter explaining the purpose of my visit? (SHOW LETTER.)

Your participation is voluntary, and in no way affects the WIC benefits you or your children currently receive or will receive in the future. The answers you provide will be completely confidential. None of the information you give me will be shared with the Department of Agriculture or with your WIC clinic in such a way as to identify you or your household.

Here is a confidentiality agreement for our interview. As you can see, it states (READ AGREEMENT ALOUD). We are asking respondents to sign this agreement and keep a copy so that we can be sure that they understand both the importance of providing accurate responses and the promise that their responses will be held in confidence. The agreement also gives you the name and telephone number of the study director at Westat who can answer questions about the study that may occur to you later. Please sign your name here (POINT TO LINE), and I will sign there (POINT OUT LINE). (HAND RESPONDENT BALL POINT PEN; WHEN SIGNATURES ARE COMPLETED ON BOTH SHEETS, HAND COPY OF DOCUMENT TO RESPONDENT.)

Later in the interview, I will be asking you questions about your income and I will need to see income records such as paycheck stubs, award letters from AFDC, and so on. You might want to get those records out now.

1. I would like to begin by asking you how you first learned about WIC?

____

____

INTERVIEWER: IF RESPONDENT IS NOT THE PARTICIPANT, SKIP TO Q.12 ON PAGE 5.

2. Now I'd like to ask you how long you have been in WIC. Some of the people we are interviewing have just entered the WIC program, others have been in it longer, and still others are in the program for a while, leave it, and then come back. Altogether, since you first started, how many months have you received WIC benefits?

_____ Months

3. Now a few questions about other food programs you may be participating in. Are you currently receiving food stamps?

YES 1
NO 2

4. How about surplus commodities distributed through the TEFAP program, where cheese, butter, dry milk and other commodities are given out. Do you receive TEFAP cheese or other commodities?

YES 1
NO 2

IS RESPONDENT UNDER 19 YEARS OF AGE?
YES 1
NO .... 2 (SKIP TO Q.7)

5. Do you attend a school that serves school lunches? These are complete lunches costing a fixed price every day.

YES 1
NO .... 2 (SKIP TO Q.6)

a. Do you usually eat these lunches?

YES 1
NO 2

6. Do you attend a school that serves a complete breakfast costing a fixed price each day?

YES 1
NO .... 2 (SKIP TO Q.7)

a. Do you usually eat breakfast at school?

YES 1
NO 2

7. What about health insurance coverage? Are you currently on Medicaid, or do you have some other kind of health insurance? (PROBE TO CODE BELOW)

MEDICAID 1
PRIVATE HEALTH INSURANCE 2
OTHER (SPECIFY: 3

NONE 4
DON'T KNOW 5

8. The next few questions are about employment. Are you currently employed either full-time or part-time?

YES 1
NO .... 2 (SKIP TO Q.11)
REFUSED .... 7 (SKIP TO Q.20)

9. Altogether, how many hours per week do you usually work at your job?

_______ HOURS PER WEEK (TOTAL, ALL JOBS)

a. Is this at one job, or at more than one?

ONE JOB 1
MORE THAN ONE 2

0. What is your occupation? (RECORD BELOW AND SKIP TO Q. 20)

____

____

1. Are you looking for work now?

YES 1
NO 2
REFUSED 7

INTERVIEWER: SKIP TO Q.20

INTERVIEWER: FOR ALL RESPONDENTS WHO ARE NOT THE PARTICIPANT, ASK Q.12 THROUGH Q.19

12. Now I'd like to ask you how long (PARTICIPANT) has been in WIC. Some of the youngsters in our study have just entere the WIC program, others have been in it longer, and still others are in the program for a while, leave it, and the come back. Altogether, since (PARTICIPANT) first started, how many months has (he/she) received WIC benefits?

_____ Months

13. Now a few questions about other programs that may help provide (PARTICIPANT's) food. Is some of (his/her) fooc purchased with food stamps?

YES 1
NO 2

14. Does anyone in your household pick up surplus cheese, butter, dry milk or other government commodities distributec through the TEFAP program?

YES 1
NO .... 2 (SKIP TO Q.15)

a. Does (PARTICIPANT) eat any of these foods?

YES 1
NO 2

15. Does (PARTICIPANT) receive a complete lunch that costs a fixed price each day at school during the regular school year, or during the summer? (CHECK ALL THAT APPLY)

YES, SCHOOL LUNCH AT SCHOOL 1
YES, SUMMER LUNCH 2
NO 3
DNA, NOT IN SCHOOL 4

16. Is (he/she) currently in a child care center or a child care home? (CODE ONE BELOW)

YES, IN CHILD CARE CTR 1
YES, IN CHILD CARE HOME .... 2 (SKIP TO Q.17)
NO .... 3 (SKIP TO Q.17)

a. Is this a Head Start center?

YES 1
NO 2

17. Does (PARTICIPANT) attend a school that serves a complete breakfast costing a fixed price each day?

YES 1
NO .... 2 (SKIP TO Q.18)

a. Does (she/he) usually eat breakfast at school?

YES 1
NO 2

18. Does (PARTICIPANT) participate in a Summer Feeding Program?

YES 1
NO 2

19. Is (PARTICIPANT) currently covered by Medicaid, or is (he/she) covered by some other kind of health insurance? (PROBE TO CODE BELOW)

MEDICAID 1
PRIVATE HEALTH INSURANCE 2
OTHER (SPECIFY: 3

NONE 4
DON'T KNOW 5

20. Now, I'm going to ask some questions about your household. When you answer these questions, please describe the household as it was back in (FINANCIAL DATA REFERENCE PERIOD). Altogether, how many people were living in this household at that time? __________ NUMBER

21. Thinking back then, I'd like to write down the first name of each person who was living in the household at that time. First, let's write down (PARTICIPANT). (ENTER NAME ON LINE 01 IN HOUSEHOLD ENUMERATION TABLE. IF RESPONDENT IS THE PARTICIPANT, SKIP TO Q. 23.)

22. (IF RESPONDENT IS <u>NOT</u> THE PARTICIPANT.) And you are ______________ (CONFIRM RESPONDENT'S FIRST NAME AS GIVEN ON FACE SHEET AND ENTER NAME ON LINE 02 IN ENUMERATION TABLE.)

23. And the other members of this household at that time -- what are their first names? Let's begin with everyone related to (PERSON 01). (ENTER NAMES IN ENUMERATION TABLE. START WITH LINE 02 IF RESPONDENT IS THE PARTICIPANT, OR LINE 03 IF RESPONDENT IS NOT THE PARTICIPANT.)

24. Were there any other people living here in (FINANCIAL DATA REFERENCE PERIOD) who were <u>not related</u> to (PARTICIPANT), such as friends or roomers? (IF <u>YES</u>, ENTER FIRST NAMES ON ENUMERATION TABLE.)

YES 1
NO 2

25. Now about people who were part of the household but who were not living here in (FINANCIAL DATA REFERENCE PERIOD). Was anyone in the household away...

a.	on full-time active duty with the Armed Forces?	Y	N
b.	on vacation, in a hospital, or working away for a while?	Y	N
c.	living full-time at college, a special school, or an institution?	Y	N

REVIEW Q.25a-c
IF ANY CIRCLED "Y," ENTER FIRST NAME ON ENUMERATION TABLE.
IF IN ARMED FORCES, WRITE "AF" ABOVE NAME.

26. Let me make sure I've got it right. Back in (FDRP), the household included (READ NAMES FROM ENUMERATION TABLE).

YES 1
NO 2

27. CIRCLE PERSON # FOR RESPONDENT BELOW.

28. STARTING WITH PERSON 02, ASK: What is (PERSON)'s relationship to (PARTICIPANT)? (SPECIFY: E.G., "STEP-FATHER", "HALF-SISTER". ALSO, IF PERSON IS NOT RELATED TO PARTICIPANT, INDICATE RELATIONSHIP TO OTHER HOUSEHOLD MEMBERS: e.g., "03's daughter".)

29. CODE SEX FOR EACH PERSON. IF NOT CLEAR, ASK: Is (PERSON) male or female?

30. How old was (PERSON) in (FDRP)?

31. FOR EACH PERSON AGE 15 OR YOUNGER, ASK: Did (PERSON) have any income in (FDRP)? IF "YES", CHECK BOX FOR Q. 31.

> FOR EACH PERSON, ASK Q. 32-34 UNTIL "YES" IS GIVEN. THEN CHECK BOX IN Q.35 AND GO TO NEXT PERSON ON LIST.

32. Now I have a few questions about financial support arrangements among household members. Did someone in the household provide support to both (you/PARTICIPANT) and (PERSON) in (FDRP)?

> STARTING WITH PERSON 02: IS EITHER BOX FOR Q.30 OR BOX FOR Q.31 CHECKED?
>
> YES .... 1 (ASK Q.33)
> NO .... 2 (SKIP TO NEXT PERSON)

33. Did (PERSON) share (his/her) income with (you/PARTICIPANT) or help pay for (your/PARTICIPANT's) expenses in (FDRP)?

> FOR PARTICIPANT (PERSON 01), IS BOX FOR Q.30 OR 31 CHECKED?
>
> YES .... 1 (ASK Q.34)
> NO .... 2 (CIRCLE "3" FOR Q.34 FOR EACH PERSON, AND SKIP TO Q.35)

34. Did (PERSON) receive support from (you/PARTICIPANT) in (FDRP)?

35. IF "YES" CIRCLED FOR Q. 32, Q. 33, OR Q. 34, CHECK BOX FOR Q. 35 FOR THAT PERSON.

HOUSEHOLD ENUMERATION TABLE (USE CONTINUATION SHEET IF MORE THAN 7 PERSONS IN HOUSEHOLD)

Q27 (CIRCLE RESPONDENT) PERSON NUMBER	FIRST NAME	Q28 RELATIONSHIP	Q29 SEX M	F	Q30 AGE	CHECK BOX IF 16 OR OVER	Q31 CHECK BOX IF UNDER 16 W/INC.	Q32 SHARE COMMON SOURCE YES	NO	Q33 SUPPORTS PART. YES	NO	DNA	Q34 PART. SUPPORTS YES	NO	DNA	Q35 CHECK BOX IF "YES" TO Q. 32,33,34
01	PARTICIPANT	(SELF)	1	2				-----	-----	-----	-----	-----	-----	-----	-----	---------
02			1	2				1	2	1	2	3	1	2	3	
03			1	2				1	2	1	2	3	1	2	3	
04			1	2				1	2	1	2	3	1	2	3	
05			1	2				1	2	1	2	3	1	2	3	
06			1	2				1	2	1	2	3	1	2	3	
07			1	2				1	2	1	2	3	1	2	3	

36. IF PARTICIPANT IS 5 YRS OR YOUNGER AND NEITHER PARENT IS LISTED ABOVE, ASK:
Who is (PARTICIPANT'S) legal guardian? CHILD'S PERSON #: ___ LEGAL GUARDIAN'S PERSON #: ___

37. In (FDRP), were there any married people in the household? Please count anyone who was married but not l together with their spouse.

YES 1
NO .... 2 (SKIP TO Q.39)

38. PROBE TO CODE WHICH PERSONS WERE MARRIED BELOW. IF PERSON IS MARRIED TO SOMEONE LIVING OUTSIDE THE HOUSEHOLD, INDICATE THIS IN MARGIN.

PERSON #___ AND PERSON #___

PERSON #___ AND PERSON #___

PERSON #___ AND PERSON #___

39. Was anyone in the household pregnant during (FDRP)?

YES 1
NO .... 2 (SKIP TO Q.40)

a. Who was pregnant?

PREGNANT WOMAN

PERSON # ___

PERSON # ___

TURN BACK TO Q. 25c ON PAGE 7. ARE ANY "Y"s CIRCLED?	
YES	1 (GO TO Q.40)
NO	2 (SKIP TO Q.41)

40. FOR EACH PERSON CIRCLED "Y" IN Q.25c,
RECORD NAME AND PERSON #
AND ASK:

	____ (name) PERSON # ___	____ (name) PERSON # ___	____ (name) PERSON # ___	____ (name) PERSON # ___	____ (name) PERSON # ___
a. Was (PERSON) a student back back in (FDRP)?	Y N	Y N	Y N	Y N	Y N
b A college student?	Y N	Y N	Y N	Y N	Y N
c. Who paid (his/her) expenses for being there? (CIRCLE ALL THAT APPLY)					
Person in the household (RECORD PERSON #)	PERSON #:___	PERSON #:___	PERSON #:___	PERSON #:___	PERSON #:___
Person who lives outside the household	Out	Out	Out	Out	Out
An agency, such as welfare department or court	Agency	Agency	Agency	Agency	Agency

41. TURN BACK TO ENUMERATION TABLE ON PAGE 9.
WAS ANYONE IN THE HOUSEHOLD UNDER AGE 18?

YES .... 1 (ASK Q.42)
NO .... 2 (SKIP TO Q.47)

42. Were any of the children living in this household in (FDRP) foster children?

YES 1
NO .... 2 (SKIP TO Q.43)

a. Please give me the first name of (the/each) foster child. RECORD NAME AND PERSON #.	______ (name) PERSON # ___	______ (name) PERSON # ___	______ (name) PERSON # ___	______ (name) PERSON # ___	______ (name) PERSON # ___
b. Who had legal responsibility for (CHILD)? (CIRCLE ONE)					
Person in the household (RECORD PERSON #)	PERSON #:___	PERSON #:___	PERSON #:___	PERSON #:___	PERSON #:___
Someone who lived outside the household	Out	Out	Out	Out	Out
An agency, such as welfare department or court	Agency	Agency	Agency	Agency	Agency

43. Back in (FDRP) was any child in the household under a joint custody arrangement where one parent lives elsewhere?

YES 1
NO .... 2 (SKIP TO Q.47)

a. Which child was this? And the parent is? (PROBE TO RECORD PERSON NUMBER FROM HOUSEHOLD ENUMERATION TABLE. REPEAT IF MORE THAN ONE CHILD IS UNDER JOINT CUSTODY)

______ PERSON # CHILD	______ PERSON # PARENT
______ PERSON # CHILD	______ PERSON # PARENT
______ PERSON # CHILD	______ PERSON # PARENT

44. Who claims the (child/children) as (a dependent/dependents) on the income tax records? (PROBE TO CODE BELOW)

______
PERSON #
CHILD

PARENT LIVING IN THE HOUSEHOLD	1
OTHER PARENT	2
OTHER (SPECIFY:	3

______
PERSON #
CHILD

PARENT LIVING IN THE HOUSEHOLD	1
OTHER PARENT	2
OTHER (SPECIFY:	3

______
PERSON #
CHILD

PARENT LIVING IN THE HOUSEHOLD	1
OTHER PARENT	2
OTHER (SPECIFY:	3

45. Back in (FDRP), how much time did (CHILD) spend living here? Would you say more than half of the time, exactly of the time or less than half? (REPEAT FOR EACH CHILD)

PERSON #
CHILD

More than half of the time 1
Exactly half 2
Less than half 3

PERSON #
CHILD

More than half of the time 1
Exactly half 2
Less than half 3

PERSON #
CHILD

More than half of the time, ... 1
Exactly half, or 2
Less than half? 3

46. Which household did (his/her) parents agree (CHILD) lives in? (REPEAT FOR EACH CHILD)

PERSON #
CHILD

This household 1
The other parent's household 2

PERSON #
CHILD

This household 1
The other parent's household 2

PERSON #
CHILD

This household 1
The other parent's household 2

ON PAGES 15-24, RECORD THE PERSON # AND NAME OF EACH HOUSEHOLD MEMBER AGED 16 YRS. AND OLDER LISTED ON THE ENUMERATION TABLE ON PAGE 9.

52. Now I will read the names of all the people 16 or older that you indicated live in your household, including yourself. (READ NAMES FROM INCOME TABLE BELOW). I will also read a list of income sources. For each source please tell me whether any of the people I have listed received income from these sources in (FINANCIAL DATA REFERENCE PERIOD). Most people have only a few sources of income, but to help people remember income they may have forgotten, I will go through the whole list. Let's start with wages and salaries from all jobs, including tips and bonuses. We can look at your documentation of the amounts as we go along. (CONTINUE WITH b-ac.)

53. AFTER COMPLETING FOR EACH PERSON FOR FDRP, GO BACK TO FIRST PERSON LISTED AND, FOR EACH SOURCE OF INCOME REPORTED FOR FDRP, ASK: Now I want to ask about (PAST MONTH'S) income. What was (your/PERSON's) income from wages and salaries in (PAST MONTH)? We can look at your documents as we go along. CONTINUE WITH b-ac. IF INCOME REPORTED FROM SOURCE NOT REPORTED IN FDRP, ASK: Let's make sure I've got this right. You got income from (SOURCE) in (PAST MONTH) but not in (FDRP)?

FILL IN AMOUNTS OF INCOME. INDICATE QUALITY OF DOCUMENTATION:

1. Had right kind of document--it showed gross income and for the correct time period.
2. Had some documentation, but there was a problem with it (e.g., wrong time period, showed net income only, etc.).
3. No documentation.

INCOME TABLE

SOURCES OF INCOME		PERSON #_____ _________ (name)	PERSON #_____ _________ (name)	PERSON #_____ _________ (name)
a. Wages and salaries from all jobs (include tips and bonuses)	Amt. at FDRP	$_________	$_________	$_________
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_________	$_________	$_________
	Circle Doc.	1 2 3	1 2 3	1 2 3
b. Net income from own farm or business	Amt. at FDRP	$_________	$_________	$_________
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_________	$_________	$_________
	Circle Doc.	1 2 3	1 2 3	1 2 3
c. Food Stamps	Amt. at FDRP	$_________	$_________	$_________
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_________	$_________	$_________
	Circle Doc.	1 2 3	1 2 3	1 2 3
d. Aid for Dependent Children (ADC/AFDC)	Amt. at FDRP	$_________	$_________	$_________
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_________	$_________	$_________
	Circle Doc.	1 2 3	1 2 3	1 2 3

INTERVIEWER NOTES

54. Financial Data Reference Period (FDRP) is the period between:

_____________ and _____________

55. All income reported is converted to a: (CIRCLE ONE)

WEEKLY BASIS	1
SEMI-MONTHLY BASIS	2
MONTHLY BASIS	3
TWO-MONTH BASIS	4
THREE-MONTH BASIS	5
YEARLY BASIS	6
OTHER (SPECIFY:	7

PERSON #_____ ______ (name)	PERSON #_____ ______ (name)	PERSON #_____ ______ (name)	PERSON #_____ ______ (name)	PERSON #_____ ______ (name)	PERSON #_____ ______ (name)	
$________	$________	$________	$________	$________	$________	
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	a.
$________	$________	$________	$________	$________	$________	
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
$________	$________	$________	$________	$________	$________	
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	b.
$________	$________	$________	$________	$________	$________	
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
$________	$________	$________	$________	$________	$________	
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	c.
$________	$________	$________	$________	$________	$________	
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
$________	$________	$________	$________	$________	$________	
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	d.
$________	$________	$________	$________	$________	$________	
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	

SOURCES OF INCOME		PERSON #_____ ______ (name)	PERSON #_____ ______ (name)	PERSON #_____ ______ (name)
e. Supplemental Security Income (SSI) (pale gold checks)	Amt. at FDRP	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
f. Refugee Assistance	Amt. at FDRP	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
g. Other public assistance or welfare payments including a non-military housing subsidy	Amt. at FDRP	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
h. Unemployment benefits	Amt. at FDRP	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
i. Workers Compensation	Amt. at FDRP	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
j. Black lung benefits	Amt. at FDRP	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
k. Other payments resulting from job-related injury or illness	Amt. at FDRP	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
l. VA compensation (exclude retirement, insurance or GI Bill)	Amt. at FDRP	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$______	$______	$______
	Circle Doc.	1 2 3	1 2 3	1 2 3

PERSON #_____ (name)	PERSON #_____ (name)	PERSON #_____ (name)	PERSON #_____ (name)	PERSON #_____ (name)	PERSON #_____ (name)	
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	e.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	f.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	g.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	h.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	i.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	j.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	k.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	l.

SOURCES OF INCOME		PERSON #_____ (name)	PERSON #_____ (name)	PERSON #_____ (name)
m. Other health-related or disability income	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
n. Social Security (green checks)	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
o. Survivor's benefits, such as pensions, estates, trusts or annuities	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
p. Regular pension or retirement (other than Social Security)	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
q. Child support	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
r. Alimony	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
s. Interest and dividends	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
t. Military housing allowance	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3

PERSON #_____ _____________ (name)	PERSON #_____ _____________ (name)	PERSON #_____ _____________ (name)	PERSON #_____ _____________ (name)	PERSON #_____ _____________ (name)	PERSON #_____ _____________ (name)	
$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	m.
$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	n.
$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	o.
$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	p.
$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	q.
$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	r.
$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	s.
$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	$__________ 1 2 3 $__________ 1 2 3	t.

SOURCES OF INCOME		PERSON #_____ (name)	PERSON #_____ (name)	PERSON #_____ (name)
u. Net rental income	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
v. Financial aid for college students (grants or scholarships or work-study income)	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
w. Money withdrawn from savings	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
x. Money obtained from loans	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
(1) What type of loan? (Car, House, School, Personal)		C H S P	C H S P	C H S P
(2) Was repayment deferred?		Y N	Y N	Y N
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
(1) What type of loan? (Car, House, School, Personal)		C H S P	C H S P	C H S P
(2) Was repayment deferred?		Y N	Y N	Y N
y. Regular contributions from non-household members	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
z. Net royalties	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
aa. Strike benefits	Amt. at FDRP	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_____	$_____	$_____
	Circle Doc.	1 2 3	1 2 3	1 2 3

PERSON #_____ __________ (name)	PERSON #_____ __________ (name)	PERSON #_____ __________ (name)	PERSON #_____ __________ (name)	PERSON #_____ __________ (name)	PERSON #_____ __________ (name)	
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	u.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	v.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	w.
$________ 1 2 3 C H S P Y N $________ 1 2 3 C H S P Y N	$________ 1 2 3 C H S P Y N $________ 1 2 3 C H S P Y N	$________ 1 2 3 C H S P Y N $________ 1 2 3 C H S P Y N	$________ 1 2 3 C H S P Y N $________ 1 2 3 C H S P Y N	$________ 1 2 3 C H S P Y N $________ 1 2 3 C H S P Y N	$________ 1 2 3 C H S P Y N $________ 1 2 3 C H S P Y N	x.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	y.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	z.
$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	$________ 1 2 3 $________ 1 2 3	aa.

SOURCES OF INCOME		PERSON #_____ _______ (name)	PERSON #_____ _______ (name)	PERSON #_____ _______ (name)
ab. Prize winnings, bonuses	Amt. at FDRP	$_______	$_______	$_______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	Amt. Past Mo.	$_______	$_______	$_______
	Circle Doc.	1 2 3	1 2 3	1 2 3
ac. Other monthly income, from baby-sitting, cash gifts from relatives, etc.	Amt. at FDRP	$_______	$_______	$_______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	(SPECIFY)	_______	_______	_______
	Amt. Past Mo.	$_______	$_______	$_______
	Circle Doc.	1 2 3	1 2 3	1 2 3
	(SPECIFY)	_______	_______	_______

PERSON #_____	PERSON #_____	PERSON #_____	PERSON #_____	PERSON #_____	PERSON #_____	
(name)	(name)	(name)	(name)	(name)	(name)	
$________ 1 2 3	$________ 1 2 3	$________ 1 2 3	$________ 1 2 3	$________ 1 2 3	$________ 1 2 3	ab.
$________ 1 2 3	$________ 1 2 3	$________ 1 2 3	$________ 1 2 3	$________ 1 2 3	$________ 1 2 3	ac.

56.	IS THERE ANY HOUSEHOLD MEMBER 16 OR OLDER WITH NO INCOME AT ALL REPORTED FOR FDRP?		
	YES	1	(ASK Q.57)
	NO	2	(SKIP TO Q.58)

57. You have told me that (PERSON WITHOUT INCOME) had no income at all for (FDRP). How did (he/she) get food, clothing, and housing in that month?

____

____

58.	IS THERE ANY HOUSEHOLD MEMBER 16 OR OLDER WITH NO INCOME AT ALL REPORTED FOR LAST MONTH?		
	YES	1	(ASK Q.59)
	NO	2	(SKIP TO Q.60)

59. You have told me that (PERSON WITHOUT INCOME) had no income at all for (LAST MONTH). How did (he/she) get food, clothing, and housing for that month?

____

____

60. Now I want to ask you about your experiences when you were certified back in (MONTH). At that time, were you asked to show documentation on income?

YES 1

NO .... 2 (SKIP TO Q.63)

a. Did they ask for income documentation for each different adult in the household?

YES 1

NO 2

b. Did they ask for income documentation for each different source of income, such as one document for welfare, another one for unemployment benefits, and so on.?

YES 1

NO 2

61. Did you show any income documents at that time?

YES.. 1 (SKIP TO Q. 63)
NO... 2

62. What happened when you did not show income documents?

Certified/recertified without
documents, given deadline to
bring them in.. 1

Certified/recertified without
documents, no deadline given
to bring them in..................................... 2 (SKIP TO Q. 63)

Not certified/recertified............................ 3 (SKIP TO Q. 63)

Other (SPECIFY)...................................... 4 (SKIP TO Q. 63)

____
____

a. How long were you given to bring in the documents?

________ DAYS

________ WEEKS

________ MONTHS

b. Did you bring some documents in by the deadline?

YES.. 1
NO... 2

63. Were you asked to show any <u>other</u> kind of documents? For example, were you asked to show proof of the number of people in your household, or proof of residency, or proof of pregnancy?

YES.. 1
NO... 2

64. Were you asked to give:

a. Your Social Security Number?

YES.. 1
NO... 2

b. Anyone else's Social Security Number?

YES.. 1
NO... 2

65. Have you ever applied for but been denied WIC program benefits?

YES.. 1
NO...2(SKIP TO Q.66)

a. What reason was given?

____
____

66. I'm now going to ask some questions about whether you would be able to bring in documents. If it was required for WIC, would you be able to show documentation on income for each adult in your household and for each different source they receive it from?

YES.. 1 (SKIP TO Q. 67)
NO... 2

a. Why would you not be able to do this?

____
____

67. If it was required for WIC, would you be able to give the Social Security Number of every member of your household who was five or older?

YES.. 1 (SKIP TO Q. 68)
NO.. 2

a. Why would you not be able to do this?

____
____

68. If it was required for WIC, would you be able to give the names of the employers and social workers of all household members?

YES.. 1 (SKIP TO Q. 69)
NO.. 2

a. Why would you not be able to do this?

____
____

69. END OF INTERVIEW:

This concludes the interview. Thank you very much for your time. My supervisor may want to recontact you to verify the information I have obtained and to ask you some additional questions. If (he/she) needs to contact you, could you give me a convenient time to reach you?

BEST TIME: |__|__| : |__|__| a.m. p.m.

Again, let me assure you that your name and any information that you have provided to me, or may provide to my supervisor, will be held in total confidence as stated in the agreement that you and I signed at the beginning of the interview.

Again, thank you for your cooperation.

PLEASE RECORD TIME INTERVIEW ENDED BELOW:

TIME ENDED: |__|__| : |__|__| a.m. p.m.

INTERVIEWER REMARKS

(FILL OUT AS SOON AS POSSIBLE AFTER LEAVING RESPONDENT)

R-1. (Was/Were) other persons present during the interview?

YES..	1	(R-2)
NO...	2	(R-3)

R-2. Who was that? (LIST PEOPLE PRESENT BY RELATIONSHIP TO RESPONDENT)

____

____

____

____

R-3. The interview was conducted in:

English..	1
Spanish..	2
Other Language (SPECIFY)...............................	3

____

R-4. Note anything else essential to the interpretation and understanding of this interview.

____

____

____

____

State Supplemental Questions

47. Regardless of whether they live at home or not, were any of the people in this household going to college back in FDRP?

YES..	1 PERSON #___
NO..	2

THERE ARE NO Q.48-51. SKIP TO Q.52 ON NEXT PAGE.

47. IN FDRP, DID HOUSEHOLD INCLUDE A WOMAN WHO LIVED WITH HER PARENTS, RELATIVES, OR OTHERS? (CIRCLE BELOW AND RECORD WOMAN'S PERSON #)

YES.. 1 (PERSON # ___)
NO... 2

48. IN FDRP, DID HOUSEHOLD INCLUDE A FAMILY THAT LIVED WITH GRANDPARENTS, RELATIVES OR OTHERS? (CIRCLE BELOW AND RECORD PERSON #s OF THAT FAMILY)

YES.. 1
NO... 2

PERSON #S OF FAMILY	LIVING IN HHOLD DURING FDRP
______	Y N
______	Y N
______	Y N
______	Y N
______	Y N

49. Were these temporary living arrangements for (WOMAN/FAMILY)?

TEMPORARY.. 1
PERMANENT.. 2 (SKIP TO Q.52)

50. When did (WOMAN/FAMILY) move into this household?

__ __ __
MM DD YY

51. Before moving here, did (WOMAN/FAMILY) maintain a separate household?

YES..	1
NO..	2

GO TO Q.52 ON NEXT PAGE.

47. IN FDRP, DID HOUSEHOLD INCLUDE GIRL AGED 15-17 LIVING WITH SOMEONE OTHER THAN PARENTS OR LEGAL GUARDIAN?

YES.. 1
NO... 2 (SKIP TO Q.52)

48. We've talked about marital status earlier in the interview, and I need to know one more thing to make sure I've got it right. Was (GIRL) ever married?

YES.. 1
NO... 2

THERE ARE NO Q.49-51. SKIP TO Q.52 ON NEXT PAGE

47. IN FDRP, DID HOUSEHOLD INCLUDE A WOMAN WHO LIVED WITH HER PARENTS, RELATIVES, OR OTHERS? (CIRCLE ONE BELOW AND RECORD WOMAN'S PERSON #)

YES..	1	(PERSON # ___)
NO...	2	

48. IN FDRP, DID HOUSEHOLD INCLUDE A FAMILY THAT LIVED WITH GRANDPARENTS, RELATIVES OR OTHERS? (CIRCLE ONE BELOW AND RECORD PERSON #s OF THAT FAMILY)

YES..	1
NO...	2

PERSON #S OF FAMILY	LIVING IN HHOLD DURING FDRP
______	Y N
______	Y N
______	Y N
______	Y N
______	Y N

49. Were these temporary living arrangements for (WOMAN/FAMILY)?

TEMPORARY..	1	
PERMANENT..	2	(SKIP TO Q.52)

THERE ARE NO Q.50-51. SKIP TO Q.52 ON NEXT PAGE

47a. IN GRID BELOW, RECORD PERSON #s OF EACH PERSON IN THE ENUMERATION TABLE.

47b. In (FDRP), did (PERSON) take most meals with the rest of the household? (CIRCLE "Y" OR "N" IN GRID BELOW.)

47c. Were any of these people roomers or boarders in (FDRP)? (CIRCLE "Y" OR "N" IN GRID BELOW.)

47d. Did any of these people have Medicaid cards in (FDRP)? (CIRCLE "Y" OR "N" IN GRID BELOW.)

HOUSEHOLD STATUS DURING FINANCIAL DATA REFERENCE PERIOD

Q.47a PERSON #	Q.47b MEALS IN HHOLD.?	Q.47c ROOMER/BOARDER?	Q.47d MEDICAID?
01	Y N	Y N	Y N
____	Y N	Y N	Y N
____	Y N	Y N	Y N
____	Y N	Y N	Y N
____	Y N	Y N	Y N
____	Y N	Y N	Y N
____	Y N	Y N	Y N
____	Y N	Y N	Y N
____	Y N	Y N	Y N

48. IN FDRP, DID HOUSEHOLD INCLUDE A PREGNANT FEMALE WHO WAS LIVING WITH A FRIEND OR RELATIVE?

YES.. 1
NO... 2 (SKIP TO Q.52)

a. RECORD HER PERSON # BELOW AND ASK: Before living here, did (you/NAME) maintain (your/her) own household?

PERSON # ___

YES.. 1
NO... 2

THERE ARE NO Q.49-51. SKIP TO Q.52 ON NEXT PAGE.

47. IN FDRP, WAS ANYONE IN HOUSEHOLD AGED 12-20 YEARS?

YES.. 1
NO... 2 (SKIP TO Q.49)

48. RECORD FIRST NAME AND PERSON # IN GRID BELOW AND COMPLETE Q48a-d.

Q.48a First Name	Q.48b Person #	Q.48c At (FDRP), was any of the household's income used to pay for (MINOR's) expenses other than food and lodging?	Q.48d At that time, did (MINOR) pay for any household expenses?
________	___	YES NO DK	YES NO DK
________	___	YES NO DK	YES NO DK
________	___	YES NO DK	YES NO DK
________	___	YES NO DK	YES NO DK

49. In (FINANCIAL DATA REFERENCE PERIOD), other than (PARTICIPANT), who in the household was on the WIC program? (ENTER NAMES AND PERSON #s BELOW)

|__| IF NO ONE ELSE IN WIC, CHECK HERE AND SKIP TO Q.52.

Q.49a First Name	Q.49b Person #	Q.49c In (FDRP), was (RECIPIENT) supported by the hhold, in addition to (his/her) food and lodging?
________	___	YES NO DK
________	___	YES NO DK
________	___	YES NO DK
________	___	YES NO DK

THERE ARE NO Q.50-51. SKIP TO Q.52 ON NEXT PAGE.

47. IN FDRP, DID HOUSEHOLD INCLUDE ANY PREGNANT FEMALE AGED 18? (CIRCLE ONE AND RECORD PERSON # OF 18 YR OLD)

YES.. 1 (PERSON # ___)
NO... 2 (SKIP TO Q.48)

a. When do you expect (PREGNANT 18 YR. OLD'S) baby to be born?

____/____/___
MO. DAY YR.

b. What is (PREGNANT 18 YR. OLD'S) date of birth?

____/____/___
MO. DAY YR.

48. We talked about marital status earlier in the interview and now I need to ask one or two more questions about marriage to make sure I've got it right. In (FDRP), was anyone in this household living in a common-law marriage?

YES.. 1 (RECORD PERSON # BELOW)
NO... 2 (SKIP TO Q.49)

a. Couples living in common law marriage in (FDRP) are:

PERSON # ___ and PERSON # ___

PERSON # ___ and PERSON # ___

49. IN (FDRP), DID HOUSEHOLD INCLUDE A STEPPARENT AND A STEPCHILD?

YES.. 1 (RECORD PERSON #s BELOW)
NO... 2 (SKIP TO Q.52)

STEPPARENT IS PERSON # ___________

a. In (FINANCIAL DATA REFERENCE PERIOD), did (STEPPARENT) accept responsibility for (STEPCHILD'S) medical expenses?

Stepchild	(FINANCIAL DATA REFERENCE PERIOD) Stepparent Accepted Responsibility for Stepchild's Medical Bills	
PERSON # ___	YES	NO
PERSON # ___	YES	NO
PERSON # ___	YES	NO
PERSON # ___	YES	NO

THERE ARE NO Q.50-51. SKIP TO Q.52 ON NEXT PAGE.

47. IN FDRP, DID HOUSEHOLD INCLUDE FEMALE UNDER 21 WHO IS PREGNANT OR HAS A CHILD?

YES.. 1
NO... 2 (SKIP TO Q.48)

a. In (FDRP), (did you/did MINOR) receive ADC?

Minor	FINANCIAL DATA REFERENCE PERIOD Receives ADC/AFDC	
PERSON # ___	YES	NO
PERSON # ___	YES	NO
PERSON # ___	YES	NO
PERSON # ___	YES	NO

b. IF MINOR HAS ONE OR MORE CHILDREN, ASK: Did (CHILD) receive ADC?

Child	FINANCIAL DATA REFERENCE PERIOD Receives ADC/AFDC	
PERSON # ___	YES	NO
PERSON # ___	YES	NO
PERSON # ___	YES	NO
PERSON # ___	YES	NO

48. IN FDRP, DID HOUSEHOLD INCLUDE AN UNMARRIED COUPLE WITH A CHILD?

YES.. 1 (RECORD PERSON #s BELOW)
NO.. 2 (SKIP TO Q.49)

Parents	Child
PERSON # ___	PERSON # ___
PERSON # ___	

a. Is (CHILD) (PARENT'S) own child or a step-child? (FOR EACH PARENT, RECORD PERSON NUMBER AND CIRCLE "1" IF CHILD IS THEIR NATURAL CHILD, OR "2" IF CHILD IS STEPCHILD)

	PERSON # ___	PERSON # ___
Own child..	1	1
Step-child..	2	2

49. IN FDRP, DID HOUSEHOLD INCLUDE AN UNMARRIED COUPLE THAT INCLUDES A PREGNANT WOMAN?

YES.. 1 (RECORD PERSON #s BELOW)
NO.. 2 (SKIP TO Q.59)

Unmarried Couple

Man.. PERSON # ___

Pregnant Woman.............................. PERSON # ___

50. IN FDRP, DID HOUSEHOLD INCLUDE ANY OF THE FOLLOWING: PARENTS WITH ADULT CHILDREN 18 OR OLDER; ADULT BROTHERS OR SISTERS 18 OR OLDER; OR GRANDPARENTS AND GRANDCHILDREN?

YES.. 1 (RECORD PERSON #s BELOW)
NO... 2 (SKIP TO Q.51)

a. In (FDRP), did (ADULT RELATIVE/ADULT RELATIVES) consider (himself/herself/themselves) as members of the same economic unit as the rest of the household, or as a separate economic unit? By economic unit, I mean people who usually live in the same household and share income, goods, and services.

ADULT RELATIVES	HOUSEHOLD	
PERSON # ___	SAME	SEPARATE
PERSON # ___	SAME	SEPARATE
PERSON # ___	SAME	SEPARATE
PERSON # ___	SAME	SEPARATE

51. IN FDRP, DID HOUSEHOLD CONSIST ENTIRELY OF NONRELATED INDIVIDUALS?

YES.. 1
NO... 2 (SKIP TO Q. 53)

a. In (FDRP), did everyone in the household consider themselves as members of the same economic unit? By economic unit, I mean people who usually live in the same household and share income, goods, and services.

YES.. 1 (SKIP TO Q. 53)
NO... 2

b. Who thought of themselves as living in a separate unit from the others?

PERSON # ___

PERSON # ___

PERSON # ___

GO TO Q.52 ON NEXT PAGE.

47. In (FDRP) were any of the people in the household paid live-in attendants?

YES.. 1 (RECORD PERSON #s BELOW)
NO... 2 (SKIP TO Q.48)

a. LIVE-IN ATTENDANT IS PERSON # __________

48. TURN BACK TO Q.40a-c ON PAGE 12.
IF ANY HHOLD MEMBER WAS A COLLEGE STUDENT: RECORD PERSON # BELOW.
OTHERWISE: SKIP TO Q.49.

a. COLLEGE STUDENT IS PERSON # __________

b. Back in (FDRP), was (COLLEGE STUDENT) physically and mentally fit?

YES.. 1
NO... 2

c. At that time was (COLLEGE STUDENT) enrolled half time or more?

HALF-TIME OR MORE................................ 1
LESS THAN HALF-TIME.............................. 2

49. IN FDRP, DID HOUSEHOLD INCLUDE SINGLE FEMALE AGED 16-20?

YES 1
NO .... 2 (SKIP TO Q.53)

a. Was (FEMALE) ever married?

YES 1
NO .... 2 (SKIP TO Q.53)

b. Is she legally separated or was her marriage annulled?

ANNULLED 1
LEGALLY SEPARATED 2
SEPARATED, NO LEGAL PAPERS .... 3 (SKIP TO Q.53)
OTHER (SPECIFY: 4

c. When did she receive the (annulment/legal separation)? How long ago was that?

__________ OR __________
(MOS. AGO) (YRS. AGO)

THERE ARE NO Q.50-51. SKIP TO Q.52 ON NEXT PAGE.

47. IN FDRP, DID HOUSEHOLD INCLUDE AN UNMARRIED COUPLE AND A CHILD?

YES.. 1
NO... 2 (SKIP TO Q.48)

a. Who are (CHILD'S) parents?

CHILD'S PERSON #: _____

PARENT'S PERSON # _____

PARENT'S PERSON # _____

b. Is (CHILD) (PARENT'S) own child or a step-child?

	Consider Child	
Parent Person # ___	OWN	STEP
Parent Person # ___	OWN	STEP

48. In (FDRP) did all the persons in the household receive their mail in the same mailbox?

YES.. 1 (SKIP TO Q. 49)
NO... 2

a. Who received their mail elsewhere?

PERSON # ___

PERSON # ___

PERSON # ___

49. In addition to the utility bill that comes for the household, did anyone in the household get a separate utility bill in (FDRP)?

YES.. 1
NO... 2 (SKIP TO Q.50)

a. Who was that?

PERSON # ___

PERSON # ___

50. In (FDRP), was anyone living temporarily away from home?

YES... 1
NO.. 2 (SKIP TO Q.52)

a. Who was that?	PERSON # __	PERSON # __	PERSON # __	PERSON # __
b. When did (he/she) leave?	__/__ No. Yr.	__/__ No. Yr.	__/__ No. Yr.	__/__ No. Yr.
c. When will (he/she) be back?	__/__ No. Yr.	__/__ No. Yr.	__/__ No. Yr.	__/__ No. Yr.
d. Where was (he/she) at (FDRP)? S = School H = Hospital P = Prison O = Other (specify)	S H P O ____	S H P O ____	S H P O ____	S H P O ____
e. Did the rest of the household still consider this household (PERSON'S) principal residence?	Y N	Y N	Y N	Y N
f. Did (PERSON) still exercise (his/her) usual family responsibilities in the household? (e.g., provide support, physical care, guidance, planning)	Y N	Y N	Y N	Y N

THERE IS NO Q.51. SKIP TO Q.52 ON NEXT PAGE.

47. IS PARTICIPANT THE RESPONDENT?

YES.. 1
NO.. 2 (SKIP TO Q.52)

a. Who claims you as a tax deduction?

Someone in household.............................. 1 (RECORD PERSON #:_____)
(includes self)

Someone living elsewhere.............................. 2

THERE ARE NO Q.48-51. SKIP TO Q.52 ON NEXT PAGE.

47. IN FDRP, DID HOUSEHOLD INCLUDE A PREGNANT WOMAN OR A MOTHER WITH ONE OR MORE CHILDREN WHO LIVED WITH HER PARENTS OR RELATIVES?

YES.. 1
NO.. 2 (SKIP TO Q.48)

a. In (FDRP), did (PREGNANT WOMAN/MOTHER) make any regular financial contribution to the household? This could include things like paying rent or utilities, for instance.

YES.. 1
NO.. 2

48. IN FDRP, DID HOUSEHOLD INCLUDE A PREGNANT WOMAN OR A MOTHER WITH ONE OR MORE CHILDREN WHO LIVED WITH NON-RELATIVES?

YES.. 1
NO.. 2 (SKIP TO Q.49)

a. In (FDRP), did (PREGNANT WOMAN/MOTHER) make any regular financial contribution to the household? In this case, it need not be money but could be doing the some of the household chores regularly.

YES.. 1
NO.. 2

49. IS CASE A RECERTIFICATION?

YES.. 1
NO.. 2 (SKIP TO Q.52)

50. SUBTRACT 6 MONTHS FROM RECERTIFICATION DATE AND RECORD BELOW:

____/____ DATE OF CERTIFICATION BEFORE LAST
Mo. Yr.

51. How long has (PREGNANT WOMAN/MOTHER) been living with (NON-RELATIVES)? Did (you/she) move in together before or after (CERT. DATE BEFORE LAST)?

BEFORE.. 1
AFTER 2

WY

14b

GO TO Q.52 ON NEXT PAGE.

Appendix B: Confidentiality Agreement

WIC PROGRAM

Research Study Being Conducted by Quality Planning Corporation, and Westat for the Food and Nutrition Service of the U.S. Department of Agriculture

AGREEMENT

Respondent's Name: Mr. / Ms. / Mrs. ______________________________
(First) (MI) (Last)

I understand that the information that I provide must be accurate in order to be useful. I agree to give responses that are complete to the best of my knowledge.

______________________________ ______________________
(Signature of Respondent) (Date)

All information that would permit identification of persons interviewed as part of this study will be held in strict confidence. Participation in this study is voluntary and in no way affects the WIC benefits the participant currently receives or will receive in the future. The Food and Nutrition Service of the U.S. Department of Agriculture, Quality Planning and Westat agree to keep confidential all identifying information obtained during the interview.

______________________________ ______________________
(Signature of Interviewer) (Date)

APPENDIX C:

REFERENCES

C.
REFERENCES

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APPENDIX D:

RECONCILIATION SUBSTUDY

D.

RECONCILIATION SUBSTUDY

BACKGROUND

One of the methodological advisors on this project, Mr. Joseph Steinberg, suggested a substudy to address a possible bias in the WIV survey. The proposed substudy involved the reconciliation of discrepancies between intake and WIV survey data, by asking respondents if there was some factor that the in-home audit had missed. In this appendix, the methodology and results of the substudy are reviewed.

The motivation for conducting the reconciliation substudy was a concern that income certification error estimates from the WIV survey might be too high. As Mr. Steinberg noted on April 15, 1988,

> . . . any estimates of error provided from this study are likely to be "biased" upward unless there is an independent in-home audit with reconciliation (either on the spot or afterwards) to identify the differences that should not be considered errors.

Mr. Steinberg recommended the "sealed envelope" approach. In this method, the interviewer is provided with a sealed envelope containing the reported data; after the interview is completed, the interviewer opens the envelope and compares the information reported earlier to that just obtained in the interview. If there are discrepancies, the interviewer asks the respondent to explain. This permits identification of discrepancies that are not income certification errors, such as misunderstanding a question during the interview.

The sealed envelope approach was deemed impractical for this survey, however. To begin with, most of the sampled sites were believed to have very limited documentation of the income certification event. In addition, State regulations are so complex that even with intensive training an interviewer would find them difficult to apply in a field situation. Instead, error status was determined after the interview had taken place, and reconciliation was conducted over the telephone for error cases.

METHODOLOGY

Reconciliation was conducted only for cases that met the following criteria:

- Final determination (after rereview) of "ineligible" or "unable to determine eligibility" based on the WIV survey

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data for the FDRP and the applicable State standards. There were 74 and 28 cases, respectively, that met this criterion.

- Presence of a telephone number in the PC88 or WIV data. (Three ineligible cases lacked a telephone or message phone.)

- The interview had been conducted in English, or an interpreter was readily available according to the WIV interviewer's notes. (Five cases, four ineligible and one unable-to-determine eligibility, were non-English interviews.)

- Reconciliation had a reasonable chance of success. This affected only the unable-to-determine eligibility cases. Respondents who had refused to report income (three cases) were not recontacted, nor were respondents who had stated that another person in the household refused to reveal his or her income to anyone (one case). Also not contacted were respondents who had reported that they did not know the income of another member of the household (14 cases).

- The case file showed eligible income/household size data. (For five cases, the case file showed ineligible data, and the applicant had been certified based on piggybacking.)

Since the number of cases meeting these criteria was relatively small, all such cases were included in the substudy. A total of 69 cases (60 ineligible and 9 unable-to- determine eligibility) were available for reconciliation.

For each case, a summary form was completed with the relevant data from the WIV survey and the case-file data abstracted during PC88. The income and household size from the case file and from the WIV survey were then recorded on a telephone interview guide.

The telephone calls were carried out by Quality Planning Corporation staff members experienced in making income-eligibility determinations. Six attempts were made to reach each respondent, with the first attempt made on the day of the week and at approximately the time indicated by the respondent on the WIV survey questionnaire as best for follow-up calls. Callbacks were made at different times and days of the week. For respondents who did not have their own telephones, a different procedure was followed; the person who answered the message phone was asked to have the respondent call us collect. It was thought that repeated calls to the message phone would be likely to offend that person without much improving the probability of reaching the respondent.

The telephone interview guide briefly introduced the caller, specified the time period in question, gave the case file and WIV household size and income, and asked if the respondent had an explanation for the discrepancy. Probes were used as needed to expand upon or clarify the initial answer.

After the call was completed, the caller filled out a Reconciliation Summary Record. This recorded the initial income-eligibility status and the income-eligibility status after the reconciliation. If the respondent offered no explanation, the status of the case was not changed. If an explanation was given, the caller evaluated it in light of all available information about the case. If the explanation appeared reasonable and supported the data reported at intake, the case status was changed to "eligible." In either case, the caller recorded the basis for the determination on the record. The determination was reviewed by another caller before any changes to the data base were made.

RESULTS

Following rereview, a total of 74 cases were classified as "ineligible," of which 60 met the criteria for reconciliation. Also, 28 cases were classified as "unable to determine eligibility"; of these cases, 9 met the criteria for reconciliation.

Contact attempts failed for three of the nine unable-to- determine eligibility cases (one because of language problems and two because the phone had been disconnected). We were also unable to contact 10 of the ineligible cases (2 cases each with language problems, disconnected phones, out of town for the entire substudy period, maximum number of callbacks reached, and message phone for which the respondent did not return our call). A total of 32 of the "ineligible" cases remained ineligible after the reconciliation; 4 were converted to "unable to determine eligibility" status; and 13 were determined to be eligible. Those determined to be eligible included four cases of interviewer error, six for which the FDRP used on the WIV survey did not accurately reflect current income at intake, two for which the Phase II review of income-eligibility determination procedures had revealed details or changes in procedures too late to be incorporated into the WIV survey questionnaire, and one case eligible for miscellaneous reasons.[1] One of the "unable to determine eligibility" cases remained in that status, while one was converted to "ineligible" and four to "eligible" status. The four eligible cases included two interviewer errors, one questionnaire limitation, and one miscellaneous case.[2]

After reconciliation, 57 cases were in "ineligible" and 27 in "unable to determine eligibility" status. Reconciliation succeeded in assigning 18 additional cases to "eligible" status and 1 additional case to "ineligible" status.

The reconciliation appeared to be effective in overcoming some of the limitations of the survey methodology. The unweighted income certification error rate was reduced from 8.4 to 6.4 percent, and the number of cases for which income eligibility could not be determined was reduced from 28 to 27. Every effort was made to accept respondents' explanations only if they were clear, convincing, and consistent with the data on hand. While conducting a reconciliation 3 months after data collection ended could be expected to exacerbate the already anticipated recall effect, the reconciliation permitted correction of several interviewer errors, FDRP problems, and mistakes due to questionnaire limitations.

Appendix D Notes

[1] Respondent recall error on the WIV interview. Since income documents were shown to the local agency at certification but were no longer available by the time of the WIV interview, the income reported at certification was assumed to be more accurate.

[2] Respondent previously had not known the amount of her husband's income, but did at the time of the substudy because he had received his 1988 W-2.

APPENDIX E:

FEDERAL INCOME-ELIGIGILITY REGULATIONS AND GUIDANCE

E.

CONTENTS

1. USDA, Food and Nutrition Service, Special Supplemental Food Program for Woman, Infants, and Children (WIC), "Consolidation of WIC Regulations." *Federal Register*, July 1988 (pp. 1-17).

2. USDA, Food and Nutrition Service, Special Supplemental Food Program for Woman, Infants and Children, "Notice: Poverty Income Guidelines." *Federal Register*, Vol. 53, No. 95, Tuesday, May 17, 1988.

3. USDA, Food and Nutrition Service, *WIC Program--Certification: Income Eligibility*. FNS Instruction 803-3, October 22, 1982.

4. USDA, Food and Nutrition Service, *WIC Program--Certification: Income Eligibility*. FNS Instruction 803-3, Revision 1, April 1, 1988.

APPENDIX F:

ALTERNATIVE DEFINITIONS OF ELIGIBILITY ERROR

F.

ALTERNATIVE DEFINITIONS OF ELIGIBILITY ERROR

Any definition of eligibility error inherently contains arbitrary elements. Among the decisions that must be made in defining error are whether errors are defined in terms of Federal or State rules and regulations; whether errors are defined in terms of enrollees or participants; the minimum magnitude of the rule violation required to define an error; whether errors are defined in terms of dollars or cases in error; whether underpayment of benefits as well as overpayment count as error; and techniques used to discover and confirm the existence of an error.

The definitions of eligibility error used in the main body of this report have been based on a liability model of error. That is, if a formal audit were to be conducted of WIC enrollees, the dollar errors for food benefits would constitute liabilities from the State WIC Agencies to the Federal Government; the States could be required to repay funds expended on the ineligible enrollees.

In this appendix, we consider alternative definitions of error. Readers should keep constantly in mind that the following error estimates have no formal legal nor regulatory basis. The following findings are presented solely to aid in understanding the nature of eligibility error in WIC and to elucidate potential policy options. Three alternative classes of definitions of error are presented:

- enrollment error defined solely in terms of Federal standards leaving out across-State variations in definitions of economic unit and countable income
- participation error defined in terms of the sum of enrollees who were ineligible at the time of certification plus enrollees who became income-eligible during the course of their period of certification
- dollar error rate that includes the cost of nutrition education benefits as well as food benefits.

FEDERAL STANDARD ENROLLEE ERROR

When we coded the eligibility status of WIC enrollees, in addition to applying the applicable State eligibility standard, we also coded eligibility in terms of Federal regulations and guidance. The procedures used were identical to those used to apply State standards. We abstracted and flowcharted existing Federal rules and guidance and submitted the results to the National WIC Office for review and correction. Results were then employed to make a specific eligibility determination for all sample enrollees.

The results were remarkably similar to those obtained using existing State eligibility standards. Table F-1 shows the results.

As the table shows, 5.8 percent of enrollees (0.8 + 5.0) are ineligible under Federal standards. This compares to an 5.7 ineligibility rate (0.7 + 5.0) under State standards. The very close agreement in the total ineligibility rate masks a slightly larger divergence on exactly which enrollees are ineligible.

PARTICIPATION ERROR

The participation error rate, in contrast to the certification error rate, is the percent of WIC participants who were either income-ineligible at certification or became ineligible during their certification period because of changes in income or household composition.

As explained in chapter 3, the in-home audit sample was nationally representative of enrollees, not participants. Therefore, while certification error rates could be estimated directly from survey results, participant error rates could not. Two additional factors must be considered when inferences are to be made about the WIC participant population: The sample must be weighted to reflect enrollees' level of participation, and the error rate must be adjusted to reflect eligibility changes that result from income and household composition changes. These are discussed in turn.

Participation Weights

A WIC enrollee is an individual who is enrolled in the WIC program for a period of time. A participant is an individual enrollee who participants in the WIC program by receiving WIC benefits. WIC participants are a subset of WIC enrollees. On the whole, the percent of WIC enrollees who participant in the program is directly related to time since certification. Table F-2 shows the percent of enrollees by months of participation. These data were obtained directly from PC88 for the WIV sample of enrollees.

To adjust the enrollee sample to reflect the national WIC participant population, PC88 tracked the sampled enrollees' level of participation for 6 months. The enrollee sample was then weighted to represent their participation level. For example, an enrollee who participated for 6 months was given a weight equal to twice the weight of an enrollee who participated for 3 months.

Application of the participant weights resulted in the estimate that 5.8 percent of all participants were income-eligible at certification.

Table F-1. Comparison of Enrollment Error Using Federal Versus State Income-Eligibility Guidelines

Federal Standard	State Standards	Percent of Enrollees
Eligible	Eligible	93.5
Eligible	Ineligible	0.7
Ineligible	Eligible	0.8
Ineligible	Ineligible	5.0

Table F-2. Number of Months of Participation During the 6 Months Following Certification or Recertification

Months of Participation	Percent of Enrollees
1	1.2
2	4.0
3	4.3
4	12.4
5	16.3
6	61.8

Income and Household Composition Change

A second adjustment to the enrollee sample was necessary to estimate participation error. This adjustment consisted of adding error that arose from changes in income or household composition after the time they enrolled. States interpreted Federal guidance as giving them considerable discretion on how to treat income-eligibility change during periods of certification. Instruction 803-3 says:

> "The State agency shall ensure that local agencies disqualify an individual in the middle of a certification period if, on the basis of a reassessment of Program eligibility status, the individual is determined ineligible."

> "A related issue is the length of time that is appropriate for a person with a temporarily low income to receive benefits. The State agency may allow the person to continue for the full certification period, may establish a short certification period and reevaluate income again, or may terminate eligibility upon the determination that the family's current rate of income has increased above the WIC income standards."

States have employed this discretion in various ways. In our sample of 25 states, 7 require termination of participation if income-eligibility standards are exceeded in midcertification, and 18 allow continued eligibility through the certification period regardless of midperiod income change.[1] Following our consistent method of declaring an income-eligibility error only where a documented violation of policy occurs, we counted income changes as affecting eligibility only in those States with a policy of termination in midcertification period when income exceeds the guidelines.

To produce a valid national estimate of the number of income changes that affect eligibility, it is necessary to estimate the percent of enrollees who are ineligible because of income change at any given time. Unfortunately, the PC88 sample design could not directly produce such an estimate. Therefore, the number of changes that result in ineligibility is likely to be much less in the first month after certification than, for example, in the sixth month. A sample that reflects this reality would include participants distributed across the total range of their certification periods. However, given the limitations of the sample design of PC88, we were only able to measure change at a single point for a sample of enrollees; this point was 4 to 5 months after certification. To solve this problem it was necessary to develop a dynamic model of income change and then project model results to the WIC participant population. Because the estimation procedures used were indirect and synthetic, it should be emphasized that the results presented are dependent on the form and structure of the model.[2]

Changes in the household size and composition also affect eligibility, but this study was not designed to measure such changes well. To avoid excessive respondent and interviewer burden, respondents were not asked for the information needed to accurately determine household size changes (which would have involved listing each potential member of their household again and answering the long list of questions required to determine whether each person was a member of the economic unit for a second time period). Respondents were asked, however, whether anyone had left the household since the certification date. Therefore, the "household change" discussed in this report refers to persons leaving the household. Persons who entered the household during the certification period (including newborn infants) were not added to the household size, and any income those additional persons had was not included in the income change measure.

Table F-3 summarizes the effects of income and household change on WIC eligibility. The first column displays the percent of WIC participants, by month of participation, who had income or household changes that raised their income above the income-eligibility standard. The second column displays the percent of WIC participants that **both** had income or household changes that raised their income above the income-eligibility standard **and** resided in States where midcertification changes result in ineligibility.

In total, we estimate that 4.4 percent of WIC participants had an income change that resulted in their exceeding the income-eligibility standard for their State. Of these, however, only 1.5 percent resided in States where such changes in midcertification period result in immediate ineligibility. When we sum the errors due to ineligibility at certification plus ineligibility due to income or household charge, we estimate a total participant eligibility rate of 7.3 percent (5.8 + 1.5).

We noted above that this estimate, given the limitations of our data, is indirect and synthetic. Alternative models could produce slightly different estimates. With the most pessimistic assumptions, if we assumed that all income change occurred on the day following certification. Then the total participant error rate would increase from 7.3 percent to 7.8 percent. Optimistically, if we

Table F-3. Effects of Income Change on Eligibility by Month of Participation

Month from Certification or Recertification	% of Participants with Change Relative to Eligibility Standard	% of Participants Who Become Ineligible Because of Change
1	1.4	0.5
2	2.7	0.9
3	4.1	1.4
4	5.4	1.9
5	6.7	2.3
6	8.0	2.8
Weighted Mean	4.4	1.5

assumed that all income change occurred directly before the in-home audit, the total participant error rate would fall from 7.3 percent to 6.4 percent. We consider our model, which assumes a constant rate of income change, much more plausible than either of these extremes.

Expanded Dollar Error Rate

The dollar error estimate presented in chapter 6 included only the costs of providing food benefits to ineligible enrollees. An alternative dollar error estimate would include the costs of providing nutrition education as well. WIC local agencies spend an average of $1.37 per month, per case, providing nutrition benefits.[3] Based on our estimate of an average of 214,000 ineligible enrollees, this translates to a monthly cost of $293,000 per month in nutrition education costs expended on ineligible enrollees. Annually, the costs are $3.5 million. Adding these costs to the food cost dollar error estimate of $81 million, we arrive at an alternative dollar error estimate of $84.5 million for fiscal year 1988.

Appendix F Notes

[1] As with all WIC State regulations, income change policy is marked by many special cases. One State has a designated State official decide whether to continue eligibility. Several States declare that income change affects eligibility only if it comes to the attention of WIC. One State permits local agency discretion on the matter.

[2] The rate of change was defined as the derivative of the percent of changes affecting eligibility in the current month with respect to the number of months from the financial data reporting period (FDRP). The estimated percent of population having a change affecting eligibility was defined as the sum, over each month of a 6-month certification period, of the probability of change having occurred times the probability of participation divided by the sum of the probability of participation by month.

[3] *Study of Funding for Nutrition Services and Program Administration in the WIC Program*, FNS Office of Analysis and Evaluation, 1989, p. C14.

APPENDIX G:

GENERAL DEFINITIONS OF WIC ECONOMIC UNIT

G.

GENERAL DEFINITIONS OF WIC ECONOMIC UNIT

This appendix contains examples of State agency basic definitions of economic unit:[1]

"A household is a person or group of persons who may or may not live together but who share income and consumption of goods or services. . . . To determine household size, ask the following questions:

"How many people do you live with?

"How many people are supported by your income?

"Where do those supported by your income reside?"

"'Family', as used here, means a group of related or nonrelated individuals who are not residents of an institution but who are living together as one economic unit. An economic unit is defined as a group that jointly pool their resources."

"Family means a group of related or nonrelated individuals, who are not residents of an institution, but who are living as one household or economic group. This means that the income of the members of the group must be substantially pooled and used as necessary to meet the needs of the 'family' members. Generally, these people live together, but not in all cases."

"Definition of Family - A household or an economic unit composed of a person or group of related or unrelated persons who usually (although not necessarily) live together, who are not residents of an institution, and whose production of income and consumption of goods or services are related. Separate economic unit status for the applicant within a household may only be accepted if a group or individual meets ALL the following criteria:

"Must pay a minimum of $68.17 per month for room and board for an adult (board $54, room $14.17) and, $95.33 per month for a child under age 12 and, $117 per month for a child age 12 or over.

"The applicant is not a spouse of a member of the household; or is not a child under 18 under the parental control of, or a financial dependent of, a member of this household. The applicant must also be dependent upon income which is separate from that of others residing in the household.

"Supplemental foods are purchased separate and apart from others in the household, and consumed only by the participant."

"Family: A group of related or nonrelated individuals who are not residents of an institution but who are living together as one economic unit. . . . It is entirely possible for two or more separate economic units to reside under the same roof."

"The household, family or economic unit is defied as follows: A person or group of persons who usually, although not necessarily, live together, and whose production of income and consumption of goods or services are related. . . . A key factor in determining an economic unit is establishing if income and consumption of goods and services are shared. A group of persons, whether living together or separately, are an economic unit by virtue of sharing income and consumption of goods and services." (1/87)

"Definition of Family. Persons living in one household who are related by blood, marriage, law or conception."

"Definitions for Determining Family Size. The WIC Program definitions for income determinations follow the Family Planning definitions as closely as possible. Family is defined as one or more adults and children, if any, related by blood or law and residing in the same household. Where adults (over eighteen) other than spouses reside together each is considered a separate family by the State."

"Family size includes all related or non-related individuals who live under one roof and share financial resources for the purchase of food."

"Household shall be defined as a group of persons living together, under one roof, who are dependent upon a mutual income."

"An Economic Unit consists of an individual or a group of people who share common living expenses. It may be one person living alone, or several people living together, a family or a group of unrelated people. Included in the economic unit are the number of people who are being supported by the same income supporting the applicant."

"The total number of persons who are dependent on the total income of the household. . . . If the client is living with relatives or friends, the total income and number of persons in that household are to be considered."

Appendix G Note

[1] Although extensive efforts were made to obtain the most current information, some of these quotations are from materials dating back to 1986; because WIC eligibility determination procedures are in a constant state of change, current procedure manuals may have been revised since then.