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Estimating the Number of People Eligible for WIC and the Full-Funding Participation Rate: A Review of the Issues

Final Report

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1. INTRODUCTION

With annual expenditures of $3.8 billion in fiscal year (FY) 1997, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) has become a major component of America's commitment to adequate nutrition for low-income households. The program, which began in 1972, has grown rapidly; for example, the number of people served per month increased from 3.1 million in FY 1985 to 7.4 million in FY 1998. WIC is particularly important because it provides nutrition assistance to groups that often are at substantial nutritional risk: pregnant and postpartum women, infants, and young children.

WIC enjoys strong political support, largely because a substantial body of research has shown that the program improves birth outcomes and reduces Medicaid costs after birth (Schramm 1985 and 1986; Stockbauer 1986 and 1987; Devaney et al. 1991; Devaney and Schirm 1993; Gordon and Nelson 1995; reviews include U.S. General Accounting Office 1992 and Rossi 1998). Research also indicates that the program reduces anemia among young children (Yip 1989; and Yip et al. 1987 and 1992). Although WIC is not an entitlement program, funding and participation steadily expanded in the early 1990s. Both the Clinton Administration and Congress have expressed support for full funding for WIC--that is, enough money to serve all who are eligible and wish to participate.

Since the issue of full funding first came to prominence in the early 1990s, advocates and some state WIC agencies have maintained that the U.S. Department of Agriculture (USDA) estimates of the number of persons eligible for WIC have been too conservative. For example, Lazere et al. (1991) criticized the USDA for, among other things, using annual rather than monthly income in its estimates of income eligibility. A number of states have noted that they have more Medicaid-funded births than the number of infants the USDA estimates to be income-eligible.

A second area of concern has been the accuracy with which USDA has been able to predict WIC caseloads, which depend not only on the number of eligibles but also on participation rates. In the past few years, WIC funding either has been constant or has showed only very modest growth, because Congress has increasingly viewed WIC as approximately fully funded and possibly even serving some not eligible. This perception is partly a result of the fact that states have had more WIC funds carried over at the end of recent years.[1] In addition, the Food and Nutrition

[1]However, the General Accounting Office (GAO) attributed the growth

Service (FNS) at the USDA, which administers WIC, has found that the number of participants in several WIC categories, particularly infants, has exceeded the number estimated to be eligible for the past several years.

Reflecting these congressional concerns, the majority staff of the House of Appropriations Committee issued a report that criticized USDA's methods for estimating eligibility and participation and raised a number of concerns about WIC program administration (U.S. House Committee on Appropriations 1998). In discussing the eligibility and participation estimates, the House report stated that, when the number of estimated eligibles fell in 1995, USDA, to maintain the "full-funding" participation level at 7.5 million, increased its estimate of the percentage who would participate under full funding. The report also suggested that participation rates above 100 percent of eligibles for infants may be because the program enrolled infants who were ineligible.

As WIC has moved closer to full funding, accurately determining the numbers of people eligible for WIC and the number likely to participate has thus become more important and more controversial. In recent years, USDA has conducted a number of studies to consider methods for improving the estimates of WIC eligibles. As a result, they have introduced new methods for estimating the number of eligibles at the state level. However, they have not changed the methodology for the national estimates. To respond to Congressional concerns reflected in the Appropriations Committee report, USDA has committed to convening an expert panel to review its current approach to estimating the numbers of persons eligible for WIC and the number of eligible persons likely to participate under full funding.

USDA has contracted with Mathematica Policy Research, Inc. (MPR) to prepare this report as background for the expert panel. This report reviews recent approaches to estimating the numbers of persons eligible for and participating in WIC. It also describes issues concerning these estimates that may be worthy of review and synthesizes existing research on these issues.

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in "carry over" funds largely to administrative constraints rather than success in reaching all who could participate (U.S. General Accounting Office 1997).

The goals of the report are:

- To describe (1) the current methodology USDA uses to estimate the number of people eligible for the WIC program and the number both eligible and likely to participate if funding is available, and (2) major alternatives to the USDA methodology

- To identify the key issues, in terms of both data choices and analytical methods, involved in estimating the number of WIC eligibles and the proportion of eligibles likely to participate in WIC

- To review the existing research on these issues and identify issues that may need further review

The rest of this introductory chapter provides background for the later discussion. The first section provides an overview of the WIC program. The second section discusses the purposes for which estimates of WIC eligibles and WIC participants are used and a number of issues associated with deciding which estimates best serve these purposes.

OVERVIEW OF WIC

Program Goals and History

In 1969, the White House Conference on Food, Nutrition, and Health recommended that special attention be devoted to the nutritional needs of pregnant women and preschool children. In September 1972, Congress established the WIC program on a pilot basis, to provide nutritional screening, supplemental foods, nutrition education, and health and social service referrals for low-income pregnant and postpartum women, their infants, and their children up to age 5. WIC was permanently authorized in 1974, and most of the basic features of program operations have remained fundamentally the same over time.

From the outset, USDA and the WIC community viewed WIC as a public health program rather than a welfare program. The goal was to provide ready access to needed benefits and services to a vulnerable population, without the stigma associated with other means-tested programs such as the Food Stamp Program (FSP). Thus, WIC is administered through public health agencies or community health providers. WIC certification periods are six months or more. The WIC program has recommended that states require income documentation but has not insisted upon documentation or verification of income sources. These requirements are similar to those used in many public health programs and, in some instances, in the Medicaid program.

Eligibility for WIC

Eligibility for WIC is based on categorical criteria, income criteria, and evidence of nutritional risk. To be *categorically eligible*, a person must be (1) a pregnant woman, (2) a breast-feeding woman less than one year postpartum, (3) a non-breast-feeding woman less than six months postpartum, (4) an infant up to 1 year of age, or (5) a child from 1 to 4 years of age.[2]

States have the option of setting *income eligibility* at 100 to 185 percent of the federal poverty level, as long as income eligibility is not lower than the cutoff for free or reduced-price health services. Nearly all states use 185 percent of the poverty level as the income-eligibility threshold, but some allow their local agencies to set their own thresholds, as long as they are not lower than those for free or reduced-price health care in their local areas.[3]

Starting in 1990, participants could demonstrate income eligibility simply by documenting that they were participating in Aid to Families with Dependent Children (AFDC), the FSP, Medicaid, or other means-tested programs designated by their state WIC agency. *Adjunct eligibility*, as this process for establishing income eligibility is known, is now used to qualify most WIC participants.

For those who are not adjunct-eligible, states have considerable flexibility in the process used to establish income eligibility, in particular, in the types of documents required, in the time period over which income is measured, and in the definition of the "family " or the "economic unit" whose income is measured. For example, in 1996, only 33 of 88 state WIC agencies reported that income documentation was required at all times (Randall et al. 1998, Exhibit 4.2). Concerning the time period for measuring income, WIC program regulations say that agencies may consider either income over the past 12 months or current income, depending upon which better reflects the family's economic status, but that current income should be considered during a period of unemployment [7CFR 246.7(d)(2)(i)]. USDA believes that most agencies consider the most recent paycheck or other income (such as benefits from Temporary Assistance for Needy Families [TANF]) during the most

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[2]The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) (P.L. 104-193) gave states the option of making illegal aliens and certain classes of legal aliens ineligible for WIC. However, no states have adopted this provision so far, as implementing checks for immigration status would place a substantial administrative burden on WIC agencies.

[3]As of April 1996, only Guam and South Dakota used a lower cutoff (Randall et al. 1998).

recent month. The WIC unit is described in the regulations as "a group of related or unrelated individuals who are living together as one economic unit" [7CFR 246.2]. There is some variation in how this is interpreted at the local level, but USDA believes the unit is most often the family, including related subfamilies.

The participant must be determined to be at *nutritional risk* on the basis of a medical or nutritional assessment by a "competent professional," such as a physician, nutritionist, or nurse. The 1978 amendments to the Child Nutrition Act (PL 95-627) provided four general criteria for establishing nutritional risk:

1. Detrimental or abnormal nutritional conditions detectable by biochemical or physical measurements
2. Other documented nutrition-related medical conditions
3. Dietary deficiencies that impair or endanger health
4. Conditions that predispose persons to inadequate nutritional patterns or nutrition-related medical conditions

In the past, the state agency and (sometimes) the local agency have designed specific screening criteria for nutritional risk within these federal guidelines. At a minimum, however, the screening criteria must encompass height (or, for infants, length), weight, and a blood test for anemia or iron deficiency (infants younger than age 6 months are exempt from the blood test). Eligibility can be determined on the basis of data collected at the local agency or referral data from a competent professional not on staff at the local agency.[4] The criteria used to determine nutritional risk have varied considerably by state and local agency.

Currently, USDA is working with state WIC agencies to implement national standards for nutritional-risk criteria. The process of developing these standards has proceeded through several stages. An Institute of Medicine panel reviewed WIC nutritional-risk criteria, found a strong scientific basis for those most commonly used, recommended a number of changes, and highlighted the issue of state variation in cutoffs for major risk factors, such as anemia (Institute of Medicine 1996). USDA then

[4]The Healthy Meals for Healthy Americans Act (P.L. 103-448), passed in November 1994, gives states the option of assuming that a pregnant woman is "presumptively" eligible for WIC, once conformance with the income requirements is established. The delivery of program benefits can therefore begin while nutritional risk is being assessed. Current legislation may extend this provision to infants and children as well.

worked with the National Association of WIC Directors to develop national risk criteria based on the Institute of Medicine report. These new national standards take effect in April 1999.

The duration of the eligibility certification period varies by type of participant. Pregnant women are certified for the duration of their pregnancy and for as long as six weeks postpartum, postpartum women are certified for six months, and breast-feeding women are certified at six-month intervals up to the infant's first birthday. Most states certify infants up to their first birthday, although some use a six-month period. Children are certified at six-month intervals up to the end of the month in which they reach their fifth birthday.

Benefits

The WIC program provides three types of benefits: (1) supplemental food, (2) nutrition education, and (3) referrals to health care and social service providers. Supplemental food usually is in the form of a "food instrument" (a voucher or check) that can be exchanged for food in a store. In some areas, participants receive their food instruments as cards that can be used for electronic benefit transfer. The food instrument lists the quantities of specific foods, including brand names, that can be bought with the instrument at authorized WIC vendors. The WIC food packages vary by participant category and include iron-fortified infant formula, milk, cheese, eggs, iron-fortified adult and infant cereals, fruit or vegetable juices rich in vitamin C, dried peas or beans, peanut butter, and (for certain breast-feeding mothers) carrots and tuna. These foods provide nutrients that the diets of low-income people have traditionally lacked--specifically, protein, vitamin A, vitamin C, calcium, and iron. State or local agencies may tailor components of the food package to meet the specific nutritional needs of participants (for example, by requiring skim milk for an overweight woman). A special food package (Food Package III) is also available for those with specialized diet needs, particularly infants that need specialized formulas.

The WIC program also provides nutrition education to participants, and local agencies must offer at least two nutrition education sessions during each six-month certification period. However, participants cannot be denied food supplements for failing to attend the sessions. In November 1994, the Healthy Meals for Healthy Americans Act provided $21 per pregnant participant to disseminate information about breast-feeding, an important part of nutrition education.

To qualify as a WIC provider, the local agency must show that accessible health care facilities for low-income women, infants, and children are available. The WIC program must advise clients about the types of health care available, the location of health care facilities, the ways they can obtain health care, and the reasons such care is important. In nearly two-

thirds of the WIC service sites, routine prenatal health services and/or pediatric care are provided at the WIC agency. However, WIC funds cannot be used to provide health care to participants directly.

Program Administration

The WIC program is funded by USDA and is managed by state and local agencies. There are three tiers of administration:

1. ***Federal.*** USDA issues regulations and policy memoranda for the WIC program and, through its seven regional offices, monitors compliance. Congress determines the funding amount annually, and USDA provides cash grants to state agencies. These grants do not require matching funds from the states.

2. ***State Agencies.*** The 88 state agencies operate in the 50 states and the District of Columbia, Puerto Rico, Guam, American Samoa, the Virgin Islands, and 33 Indian Tribal Organizations (ITOs). The agencies have primary responsibility for administering the WIC program. They maintain budgets, allocate funding to local agencies, and assume primary responsibility for selecting and authorizing local WIC vendors. Each year, the state agencies submit state plans to USDA outlining budgetary projections and procedures for determining eligibility (both nutritional-risk and income eligibility) and distributing food.[5] The state agency is often the state's department of health.

3. ***Local Agencies.*** The local agencies provide services to clients (for example, screening applicants for eligibility, certifying eligibility, and issuing benefits). In some states, the local agencies are arms of the state agency; in others, they are autonomous agencies that have contracts with the state agencies. Most often, the local agencies are city or county public health departments or community health centers. In some areas, however, they are community action agencies, public hospitals, private voluntary hospitals, or migrant worker health centers.

The WIC program is not an entitlement program; participation in it is limited by a fixed level of funding. Funding is allocated to states on the basis of a complex formula that takes into account both the previous year's funding and the estimated eligible population in each state.

[5]The 1996 PRWORA included a provision that state agencies need only submit changes in their state plans.

Recently, some states have had WIC funds left over at the end of the year; in general, these funds may be carried over to the next year.

When a local agency has reached its maximum level of participation, it must place all subsequent applicants on a waiting list and use a priority system (described in detail in Table I.1) to fill any vacancies. The system gives first priority to women, infants, and children whose nutritional risk has been documented by medical tests and gives second priority to those who are at nutritional risk as a result of an inadequate diet. Within these groups, first priority is given to pregnant and breast-feeding women and infants, second priority to children, and third priority to postpartum women. States may establish subcategories within these broad priorities, for example, subcategories for children based on age. In addition, states may choose not to serve those at the lowest priority level (Priority VII)--those who are not at medical or dietary risk but who may be certified based on risk of regression to a previous condition of risk or the presence of "predisposing" risks, such as homelessness.

Another important aspect of program administration has been coordination between WIC and other programs. Congress has required increased coordination between WIC and other social service programs, particularly Medicaid, since the early 1990s. The expansions of Medicaid for pregnant women and young children that started in the late 1980s increased the importance of coordination with this program. Around 1990, Congress made participants in AFDC, the FSP, and Medicaid, "adjunctively eligible" for WIC. In addition, WIC offices were required to provide applicants with information about which of these and several other programs they might qualify for.[6]

USDA was required more recently to increase coordination between WIC and migrant and community health centers. Starting in December 1994, USDA also made eligibility for WIC among pregnant women more similar to eligibility for Medicaid by requiring that states, in determining income eligibility, count a pregnant woman as two family members.

TABLE I.1

THE WIC PRIORITY SYSTEM

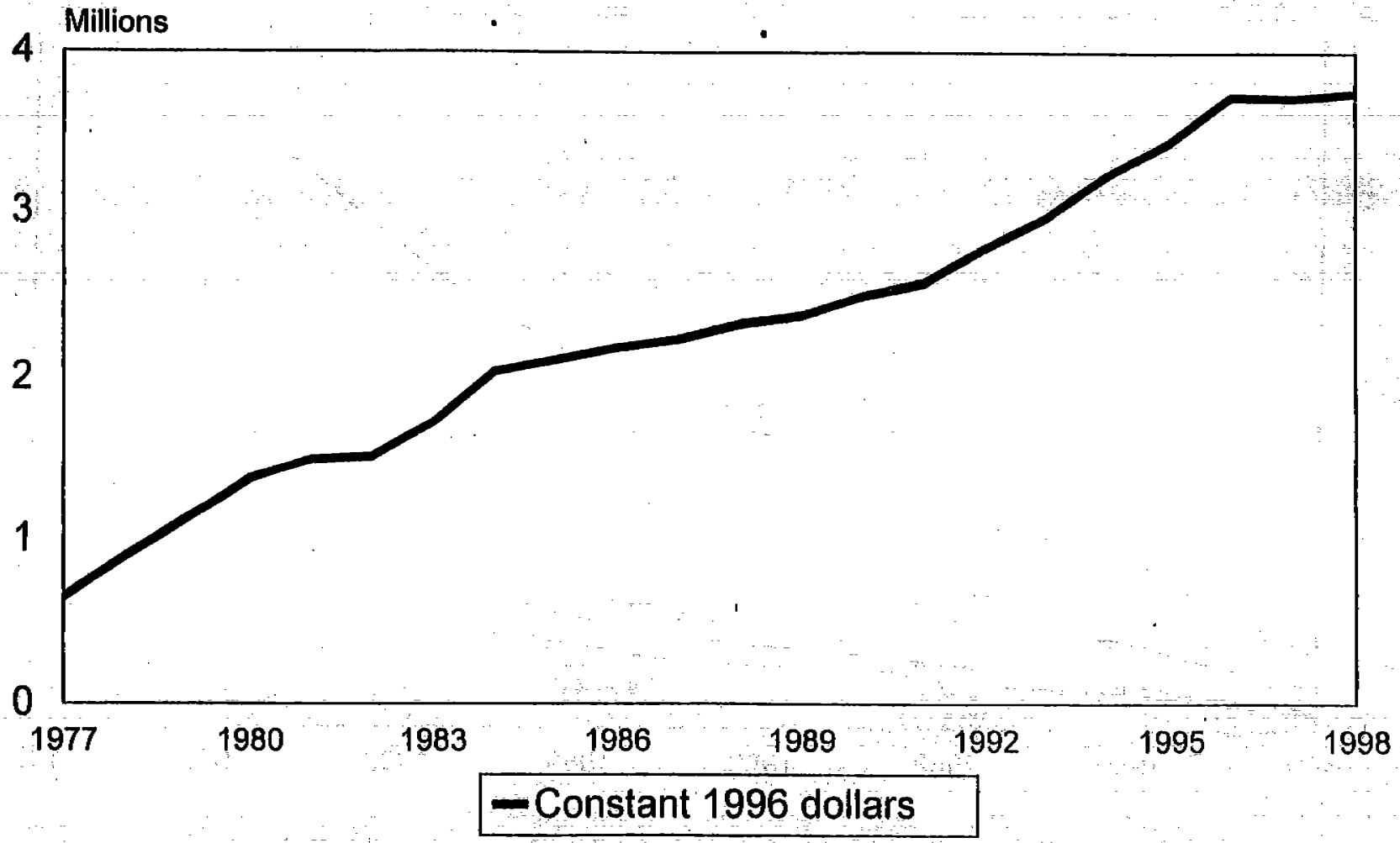
Priority	Definition
I	Pregnant and breast-feeding women and infants at nutritional risk as demonstrated by anthropometric or hematologic measurements or other documented nutrition-related medical condition.[a]
II	Infants up to 6 months of age whose mothers participated in the WIC program during pregnancy or who would have been eligible to participate under Priority I.[a]
III	Children at nutritional risk, as demonstrated by anthropometric or hematologic measurements or other documented medical condition. At the state's option, this priority can also include high-risk postpartum women.
IV	Pregnant and breast-feeding women and infants at nutritional risk as demonstrated by inadequate dietary pattern. At the state's option, this priority can also include high-risk postpartum women or pregnant or breast-feeding women and infants who are at nutritional risk solely because of homelessness or migrancy.
V	Children at nutritional risk because of inadequate dietary pattern. At the state's option, this priority can include high-risk postpartum women or children who are at nutritional risk solely because of homelessness or migrancy.
VI	Postpartum women, not breast-feeding, at nutritional risk on the basis of either medical or dietary criteria, unless they are assigned to higher priorities at the state's discretion. This priority, at the state's option, may also include postpartum women who are at nutritional risk solely because of homelessness or migrancy.
VII	Individuals certified for WIC program participation solely because of homelessness or migrancy and, at the state agency option, previously certified participants whose nutritional status is likely to regress without continued provision of supplemental foods.

SOURCE: 7 CRF Subpart C., Section 246.7(d)(4), and *Federal Register,* April 19, 1995, 60(75):19, 487-419, 491.

[a]A breast-feeding mother and her infant will be placed in the highest priority level for which either is qualified.

Figure I.2

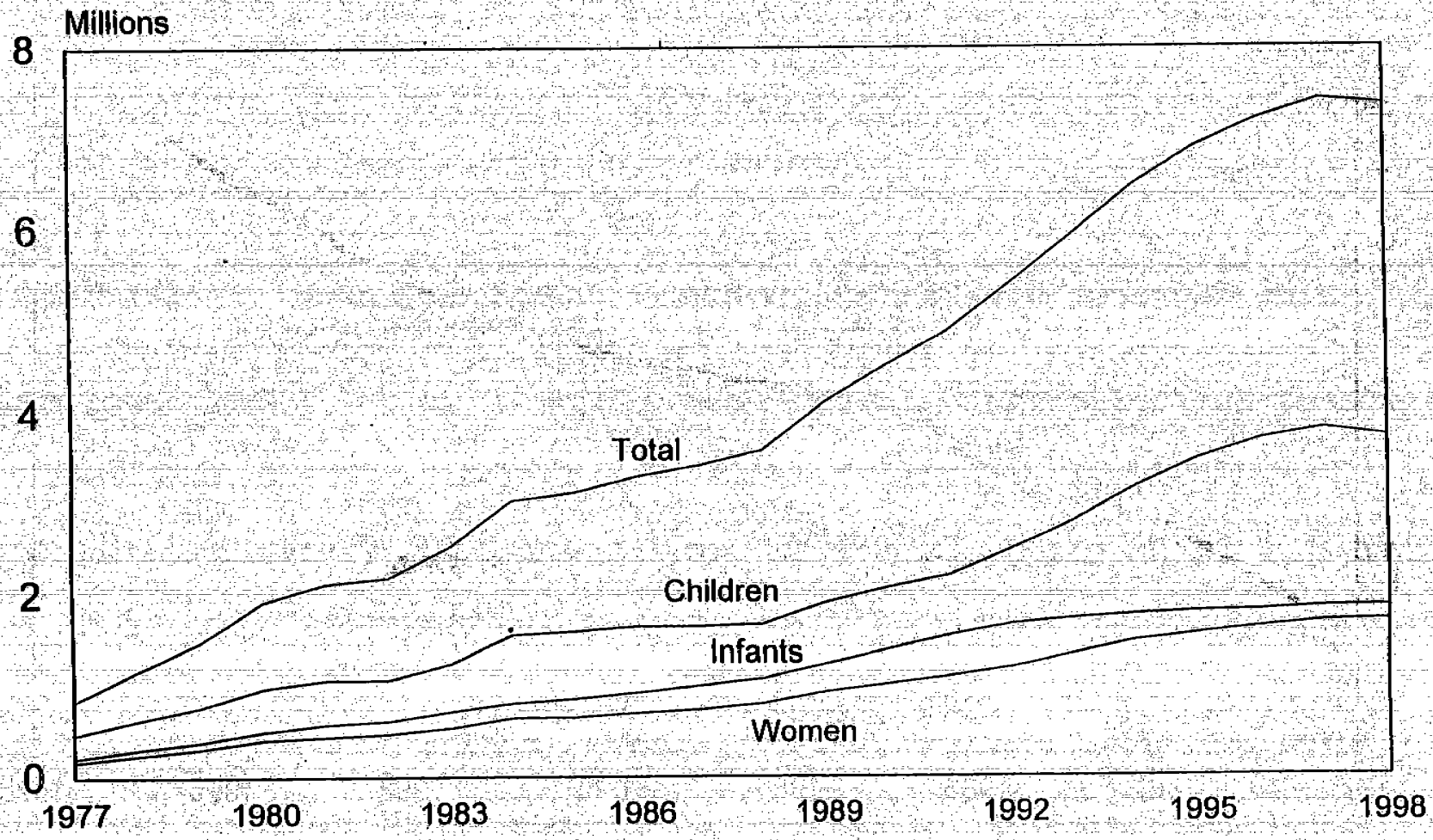
Trends in WIC Program Funding FY 1977 - FY 1998



Source: 1998 Green Book, Table 15-32, with comparable data for FY1997 and FY1998 added.

Figure I.1

Trends in WIC Program Participation
FY 1977 - FY 1998



Source: 1996 Green Book, Table 16-32, and WIC Program Participation reports.

Purposes of Estimates WIC eligibility and participation estimates serve three important purposes:

1. ***Coverage Estimates.*** USDA publishes estimates of program coverage each year. These estimates show the ratios of actual participants to estimated eligibles in a recent past year, for the program as a whole and by participant category. These estimates provide important descriptive information to policymakers; in particular, they are used to assess how close the program is to "full funding."

2. ***Budget Estimates.*** USDA uses estimates of the number of persons eligible for WIC in the most recent year available, and assumptions about the percentage of eligibles likely to participate if funding were available, to develop the WIC portion of the President's budget for the next fiscal year. Unlike the coverage estimates, the budget estimates use projected, rather than actual, participation data. Furthermore, these estimates apply data from several years earlier to estimate conditions in the upcoming fiscal year.

3. ***State Allocations.*** USDA also develops estimates of the number of people eligible for WIC at the state level, for use in allocating funds among the states. In particular, the "fair share" portion of the allocation formula is based on the relative number of eligibles in a state (as a percentage of the national total). Specifically, state-level estimates are prepared of the number of infants and children in each state who are income-eligible for WIC, and these are used to allocate funds.[7]

Even the best possible estimates for these purposes are limited by the available data, which only approximates the actual eligibility determination process at the clinic level. Thus, these estimates have never been intended for monitoring program error rates. Error rates are best assessed through detailed case reviews, including careful comparison between program data

[7]The reason that estimates of income-eligible infants and children are used, instead of estimates of all WIC eligibles, is that the total estimate of eligibles in each state is just a multiple of the estimate of income-eligible infants and children, since none of the other factors used to develop the estimates can be measured at the state level--and the relative share of eligibles in each state is all that matters in the allocation formula. See Chapter II for further details.

on income and information provided by families. FNS is currently conducting the National Survey of WIC Participants, which will include a substudy that verifies family incomes of participants and estimates error rates.

Issues in Assessing the Best Estimates for These Purposes

For all three purposes, USDA currently relies on estimates from the Current Population Survey (CPS) of the numbers of infants and children in families with annual incomes less than 185 percent of poverty. However, it is conceivable that different estimation methods or even different concepts of eligibility could be appropriate for the different purposes. Some particular examples:

- When estimating the coverage rate, does the estimate of eligibles correspond to the same population as the count of participants? Under current program practice, participants are certified for six months or more, so that some participants may not be eligible in a given month though they were eligible when certified. They are included in counts of participants but not of eligibles as currently estimated.

- When estimating the number of eligibles for budget purposes, the key goal is to have the most accurate count possible of the total number of eligibles in each category. Ideally, it would be possible to project estimates to the future fiscal year being budgeted. Factors such as the distribution of eligibles across the states are less important.

- In developing estimates for state allocations, it is most important to obtain a correct estimate of the proportion of eligibles who reside in each state. An undercount or overcount of total eligibles is not a concern for this application, as long as the proportional allocations among the states are accurate.

Another important factor to consider in developing estimates to meet these different needs is how much the budget estimates and state allocations should be affected by state policy decisions. On the one hand, USDA grants states considerable discretion over eligibility policies, which can significantly affect the number of eligible persons. For example, states are increasingly able to expand WIC eligibility by expanding Medicaid eligibility. Since USDA allows states to extend eligibility to more people, it could be argued that it is unfair for states then to be unable to serve the newly eligible. On the other hand, considerations of equity suggest that

it may be unfair for states' funding to be determined by the generosity of their policies, rather than by the true level of need of their population. Although research can clarify the role of these issues, decisions about how to address them are fundamentally political.

How many people are likely to participate in WIC under full funding is also a politically determined variable. Although no voluntary program is likely to achieve a participation rate of 100 percent, the rate could probably be increased substantially if additional resources were invested in outreach and administrative capacity. Thus, any assumption about the "full-funding" participation rate should assess the level of outreach being funded, and whether it is indeed likely to achieve the participation rates assumed. Expansion of program capacity also tends to be limited by factors such as lack of staff and additional space in clinics, which require fixed investments to overcome. The administrative implications of full funding have rarely been considered explicitly.[8]

In sum, this report seeks to identify the ways in which such issues can be informed by data and research and to clarify the areas in which political or policy judgments are still needed.

[8]Ku et al. (1994) is an exception.