

Chapter One

Introduction

USDA's food assistance and nutrition programs (FANPs) provide benefits to a large number of American children each year. Administrative data from these programs provide statistics on the number and characteristics of program participants. Administrative data from FANPs do not, however, universally provide information about multiple-program participation, or the characteristics of families who choose to participate in some, but not all, FANP programs for which they are eligible.

This study is investigating the feasibility of linking administrative data across programs to provide statistics on multiple program participation within the FANPs. The study has two phases. In the first phase, directors of FANPs from a sample of States were surveyed to obtain information about administrative data system characteristics that are relevant to data linkage. The survey included State directors of the Food Stamp Program (FSP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the Child Nutrition Program (CNP). CNP directors oversee the National School Lunch Program (NSLP), School Breakfast Program (SBP), Child and Adult Care Food Program (CACFP), and Summer Food Service Program (SFSP).

The second phase of the study recruited a limited number of FANP agencies to provide current and historic administrative data. These data are being used to test the feasibility and accuracy of linking data from different nutrition assistance programs to obtain unduplicated counts of participants, examine multiple program use by participants and by households, and examine participation dynamics. Examination of rates of multiple program participation provides a basis for evaluating the benefits of program integration for purposes of streamlining program operations. Results from the second phase of the study will be presented in a separate report.

This chapter provides brief descriptions of the FANPs and a description of the survey of FANP directors that underlies much of this report. Chapter Two provides background for the study, including an overview of research uses of administrative data, and record linkage issues. The remainder of the report presents survey results and summarizes the features of FANP information systems that are relevant to record linkage. Detailed tables are included in the appendix.

Food Assistance and Nutrition Programs

The United States Department of Agriculture, Food and Nutrition Service oversees 15 FANPs funded at a level of \$34 billion in fiscal year 2001.¹ The FSP, WIC, and NSLP account for 84 percent of total FANP funding; the SBP, CACFP, and SFSP account for an additional 10 percent of funding. The FANPs operate on a federal model, with federal dollars distributed to State agencies, which oversee local entities. While all FANPs fall under one federal agency umbrella, each FANP operates independently of the others and applicants must apply separately to each program.

The overlap in populations served by the FANPs is seen mostly among children. Subject to income-eligibility requirements, all children 18 years and younger may participate in the FSP and SFSP; CACFP primarily serves children age 12 years and younger; and WIC serves infants and children up to their 5th birthday. NSLP/SBP reimbursable meals are available to any child, regardless of income

¹ "Annual Summary of Food and Nutrition Service Programs" (www.fns.usda.gov/pd/annual.htm).

level, who attends a participating school. Eligibility for free- and reduced-price meals is determined by household income.

Food Stamp Program

Eligibility for the FSP is determined primarily by income. Households must have gross income at or below 130 percent of poverty (except households containing elderly persons) and net income (gross income less deductions) at or below 100 percent of poverty.² Households must also meet an assets limit. In addition, work-related eligibility conditions apply to certain household members, and a few groups are categorically ineligible (strikers, most persons who are not citizens or permanent residents, postsecondary students, and persons living in institutional settings). Households are deemed financially eligible for FSP regardless of income and assets if all household members are receiving Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), or in some States general assistance.

The FSP accounted for 52 percent of Federal expenditures for food assistance programs in FY 2001. The program served 17.3 million persons in 7.4 million households; 51.1 percent of all FSP participants were children; 34.5 percent of participants were school-age children and 16.6 percent were children age 4 years or younger (Tuttle, 2002).

In 2000, all State food stamp agencies had a statewide *Automated Case Certification and Management System (ACS)*, which is the food stamp participant database (USDA/FNS, 2002).³ These statewide data systems are integrated with TANF and Medicaid in 35 states, as a result of federal funding initiatives encouraging integrated information management systems at the state level to streamline eligibility determination across all three programs. This integration was feasible, despite differences in income-eligibility rules across programs. FSP information systems maintain eligibility data (including demographics, income, and assets information) and benefit disbursement data.

WIC Program

WIC participants must be categorically eligible, income eligible, and at nutritional risk. Categorical eligibility is limited to pregnant and postpartum women, infants up to one-year old, and children up to their fifth birthday. Income eligibility is established by household income at or below 185 percent of poverty, with participants in FSP, TANF, and Medicaid deemed to be adjunctively income eligible for WIC regardless of income. Applicants must also be at nutritional risk, as determined through a medical or nutritional assessment by a competent professional authority.⁴

The WIC program accounted for 12 percent of Federal food assistance outlays in FY 2001. In that year, 7.3 million persons were enrolled in WIC in an average month; 50 percent of enrollees were children and 26 percent were infants.

² Net income is equal to gross income less a standard deduction and deductions for work expenses, excess shelter costs, childcare expenses, and excess medical expenses (Food Stamp Act of 1977, as Amended).

³ The California interim statewide system operated in 35 of 58 counties.

⁴ The WIC program adopted a standard list of nutrition risk criteria for use by all States beginning April 1999. Nutrition risks include anemia, overweight or underweight status, nutritionally related medical conditions, dietary deficiencies, and inadequate nutritional patterns.

WIC is administered by 88 State WIC agencies, including the 50 geographic States, the District of Columbia, U.S. territories (American Samoa, Guam, Puerto Rico, Virgin Islands), and 33 Indian Tribal Organizations. State WIC agencies maintain statewide information systems with participant certification data (demographics, income, and nutritional risk information) and benefit issuance data.

Child Nutrition Programs

The child nutrition programs include the NSLP, SBP, SFSP, and CACFP. The NSLP and SBP provide meals to school-aged children in public and non-profit private schools; SFSP provides meals to children at summer food service locations; CACFP provides meals in child care centers and day care homes (CACFP also has an adult component not discussed in this report). The population served by each program depends on age and the venue where meals are provided.⁵

Children are eligible for NSLP-free meals if family income is at or below 130 percent of poverty, and NSLP reduced-price meals if family income is between 130 and 185 percent poverty. Children are deemed income-eligible for NSLP-free if the household participates in the FSP. Eligibility for the SBP is the same as for NSLP, but the SBP operates in about 75 percent of the schools participating in the NSLP.

CACFP provides free and reduced-price meals for children age 12 years and younger enrolled in participating child care centers and meeting the income eligibility guidelines of the NSLP. Meals are also provided to all children age 6 years and younger attending eligible family day care homes in low-income areas. Children attending child care centers are categorically eligible for free meals if their family receives benefits from FSP or TANF. SFSP provides free meals to all children age 18 years and younger residing near summer food service sites, which are located in low-income areas.

Federal food assistance outlays for the child nutrition programs in FY 2001 were: \$6.5 billion for NSLP (19 percent of all FANP outlays); \$1.45 billion for SBP; \$1.74 billion for CACFP; and \$272 million for SFSP. The daily average number of children receiving free or reduced-price lunch was approximately 15.6 million; 6.5 million received free or reduced-price breakfast; 2.7 million received CACFP meals; and approximately 2 million children received SFSP meals.

State CNP directors oversee the child nutrition programs administered by School Food Authorities or local sponsoring agencies. CNP directors generally reside within State Departments of Education, but most information systems for the child nutrition programs are not integrated at the State level. For the most part, participant-level information is maintained at benefit delivery sites (schools, child care centers, summer food service sites) and state-level agencies receive only aggregate data for participant counts and meal counts.⁶

Multiple Program Participation

Currently there are no administrative mechanisms to provide USDA with accurate and ongoing statistics on multiple program participation. Interest in these data stems from the fact that FANPs

⁵ FSP and WIC provide benefits that are redeemed at food retailers for food consumed at home. In contrast, the child nutrition programs serve meals at program-specific distribution points. For example, children can participate in SBP only if they attend a school operating the program.

⁶ USDA does not maintain information on CNP information systems. The survey conducted for this report found that only 5 of the 26 States surveyed had statewide student information systems that include indicators of certification for NSLP (free or reduced-price school lunch).

Table 1—Food Assistance and Nutrition Programs (FANPs) Serving Children

Program		Age of eligible children	Income eligibility
Food Stamp Program	FSP	0-18 yrs	≤ 130%
Supplemental Nutrition Program for Women, Infants, and Children	WIC	0-4 yrs	≤ 185%
Child Nutrition Programs			
Child and Adult Care Food Program (centers) ¹	CACFP	0-12 yrs	⎧ ≤ 130% free meals 131-185% reduced-price meals
National School Lunch Program ²	NSLP	5-18 yrs	
School Breakfast Program ²	SBP	5-18 yrs	
Summer Food Service Program ³	SFSP	0-18 yrs	
¹ CACFP also serves children of migrant workers up to age 15, and children 18 years and younger if enrolled in an institution or child care facility. CACFP snacks are available to children 18 years and younger in eligible afterschool programs.			
² NSLP and SBP provide meals to children in schools, without age eligibility criteria; ages shown in table correspond to the typical age range for school children.			
³ SFSP meals and snacks are also available to persons with disabilities, over age 18, enrolled in school programs.			

serve overlapping populations. The overlap of programs is evident from the age and income-eligibility criteria discussed above and summarized in table 1. Most of the overlap is for children, although women may participate in both FSP and WIC during the period around childbirth, and pregnant teenagers may participate in FSP, WIC, NSLP, SBP, and SFSP.

Survey data provide evidence of the overlap in populations served by FANPs. Data from the most recent Current Population Survey (CPS) provide the following program participation rates for households with school-age children: 22 percent participate in free- or reduced-price NSLP, 8 percent in the FSP, and 6.7 percent in both (i.e., 30 percent of NSLP households also participate in FSP; 82 percent of FSP households with school-age children also participate in NSLP).⁷ The program participation rates for households with preschool children are 19 percent in WIC, 11.5 percent in the FSP, and 7.1 percent in both.⁸

While survey data provide estimates of multiple program participation for the FANPs, these data suffer from several limitations. First, survey data have been found to underestimate program participation compared to administrative data counts. Data from the Survey of Income and Program Participation (SIPP) showed that participation in most programs is underestimated by 10 to 15 percentage points, and WIC participation is underestimated by 15 to 30 percentage points (Trippe, 2000). Differential underreporting of program participation in survey data leads to biased estimates of multiple program participation.

⁷ CPS statistics are author's calculations of data from the March 2001 Current Population Survey. The CPS sample included 1,325 households participating in FSP, 3,752 participating in free-NSLP, and 1,441 participating in WIC.

⁸ CPS data show that, among all households with children receiving any of FSP, WIC, NSLP, 35 percent receive benefits from two programs and 5.4 percent receive benefits from all three programs. Similar analyses of 1996 SIPP data showed that 32.5 percent received benefits from two programs and 10 percent received benefits from three programs (Trippe, 2000; Table B-5).

A second limitation of survey data is that national surveys typically include small numbers of persons participating in multiple programs, and small cell sizes result in estimates that are subject to a high degree of sampling variation (Tordella, 2002). Furthermore, the small cell sizes in national survey data do not support detailed analyses such as regional and State-level estimates.

Some estimates of multiple program participation are available from administrative data. Two mechanisms make this possible: integrated data systems and deemed eligibility. Integrated data are common for FSP and TANF, providing accurate counts of FSP clients receiving cash assistance, but integrated systems are rare for multiple food assistance programs (as discussed in Chapter Three). Deemed-eligibility, on the other hand, is used in WIC, CACFP, and the school nutrition programs. WIC applicants are adjunctively income eligible if they participate in FSP (and TANF and Medicaid), children are categorically eligible for CACFP (free meals) if they participate in FSP (and TANF), and children participating in FSP (and TANF) may be directly certified for NSLP/SBP.⁹ Estimates of multiple program participation based on deemed eligibility are lower bound estimates, however, because deemed eligibility procedures may not be used in all cases for which it is applicable. Furthermore, the extent of underestimation is not known, although it could be determined by a study of linked administrative records.

Survey of Food Assistance Information Systems

This report presents results of the *Survey of Food Assistance Information Systems*, conducted with 26 States. The survey was designed to collect information about the characteristics and content of FANP information systems that are relevant to record linkage across programs. Survey questions were modeled on the inventory of administrative data systems compiled by the University of California, Data Archives and Technical Assistance branch (UC Data, 1999). The UC Data survey was conducted in 1998 and documented the types of data systems used to administer each of nine public assistance programs, the degree of system integration, and the existence of record linkage projects.¹⁰ The Food Stamp Program was the only FANP included in the UC Data study.

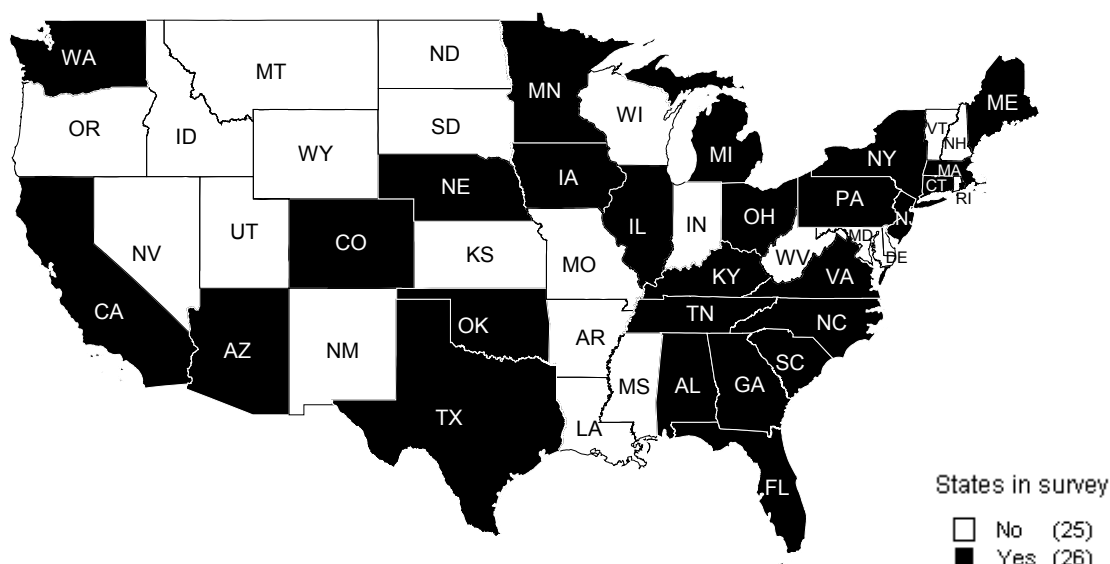
The *Survey of Food Assistance Information Systems* was conducted as a mail survey, with mailings in December 2001; all surveys were complete by March 2002. Respondents to the survey were State FSP directors, State WIC directors, and State CNP directors or their designees. Three survey instruments were prepared with questions tailored to the three agencies. The 26 States included in the survey are shown in figure 1. This sample of states, taken from the UC DATA study, includes the ten largest states plus four states sampled from each of the four census regions. These states represent approximately 80 percent of the FSP and TANF population in the United States.¹¹ The UC Data sample of states was used, rather than a population survey, to conserve costs and maintain comparability with the prior study, however, this is not a random sample and results cannot be used to make inferences about the population of all States.

⁹ Chapter Three presents information on the methods used by FANPs to implement and verify adjunct-eligibility and direct certification.

¹⁰ The nine programs included in the survey were TANF, FSP, Medicaid, Child Support Enforcement, Child Protective Services, Child Care, Foster Care, JOBS, and Unemployment Insurance earnings records.

¹¹ The 26 States contained 78 percent of the FY2001 FSP recipients (USDA/FNS, 2003) and 83 percent of FY2001 TANF recipients (<http://www.acf.dhhs.gov/news/stats/recipientsL.htm>).

Figure 1—States included in Survey of Food Assistance Information Systems



The following topics were included in the survey:

- Information system architecture—system hardware and software; database structure; record retention and archival; data overwriting policies; type of connections between state and local agencies.
- Participant identifiers—primary identifier; demographic identifiers; retention of primary identifier over multiple spells; data verification and standardization.
- Integration with other programs—system integration; file exchanges for NSLP direct certification; verification of WIC adjunctive income eligibility; inclusion of program in state master client index.
- Research uses of administrative data—research purposes; organizations using administrative data.

The main goal of the survey was to determine the potential for record linkage across programs. This potential is indicated by presence of common identifiers, program integration, and evidence of data sharing arrangements reported by respondents.

Findings

FSP and WIC maintain statewide systems that are generally updated in real-time. There are significant differences, however, between FSP and WIC in terms of hardware, software, file structure, data retention rules, and number and types of individual identifiers. Many differences between FSP and WIC are due to characteristics of the programs. For example, FSP enrolls households and most FSP systems use hierarchical file structures whereby one household record is linked to one or more individual records. On the other hand, WIC enrolls individuals and provides numerous services; as a result, most WIC systems use relational databases to link individual certification records to other information such as food package prescriptions, voucher data, and nutrition education appointments.

Other differences between FSP and WIC are due to different regulatory requirements: all FSP agencies collect Social Security Numbers (SSNs) for participants as required by law; few WIC programs collect this information as a mandatory data item because there is no regulatory requirement to do so.

In contrast to FSP and WIC, child nutrition programs do not have statewide information systems. Most of the 26 State CNP directors reported that they maintain information about CACFP and SFSP sponsors and sites, but not participants. Ten of the 26 State CNP directors reported statewide student information systems maintained by the Department of Education in their State, but only half of these systems contain information about student eligibility for the NSLP and SBP.

There is currently no integration between FSP, WIC, and the child nutrition programs and, among these FANPs, only FSP is significantly integrated with other public assistance programs. The FSP has a history of integration with AFDC/TANF and Medicaid; and in some States, integration is reported with several other programs. In addition, the FSP is included in the master client indexes of social service clients maintained by 11 of the 26 States surveyed, while WIC is included in master client indexes in only 3 States.

Among the FANPs, only FSP routinely conducts record linkage or computer matching activities. Computer matching by the FSP is required by law to verify SSNs and detect ineligible participants. FSP agencies also routinely match participant records with neighboring States to detect dual participation. Record linkage in WIC, however, is primarily limited to efforts to detect dual participation in WIC and the Commodity Supplemental Food Program (CSFP) (reported by 12 of the 26 WIC agencies surveyed). The CSFP provides USDA commodities to elderly persons and to women, infants, and children as a food distribution alternative to the WIC program. Simultaneous participation in CSFP and WIC is prohibited by law.¹²

Two main findings from the survey are relevant to a record-linkage project for the FANPs. First, participant data from the child nutrition programs are currently unavailable at the state-level except from a handful of States maintaining NSLP/SBP eligibility information in statewide student information systems. Statewide student information systems, however, currently operate in ten States and are under development in an additional eight States, providing the architecture for future development of statewide maintenance of nutrition program information.

The second finding is that FSP and WIC data systems differ in terms of the number and types of client identifiers (particularly SSNs), the extent of data verification, and the rules for data retention and overwriting. As discussed in the next chapter, the lack of a single unique identifier common to FSP and WIC precludes use of simple computer matching to link records from these programs. Nonetheless, many States have FSP and WIC data systems with sufficient common identifiers to support testing the feasibility of probabilistic record linkage for research on multiple program participation.

¹² In FY2001, women, infants, and children (W-I-C) comprised 20 percent of total CSFP participation. The number of W-I-C in CSFP was nearly 84,000; or just over one percent of total participation in WIC.