

Chapter One

Introduction

This report is part of a larger study examining the *Feasibility and Accuracy of Record Linkage to Estimate Multiple Program Participation*. The overall study investigates the feasibility of linking administrative data from multiple USDA food assistance and nutrition programs (FANPs). Linked data provide a means of examining rates of multiple program participation, dynamics of participation across programs, and the characteristics of families who participate in some, but not all FANP programs for which they are eligible.

Phase 2 of the study, reported in this volume, collected retrospective administrative caseload data from food stamp and WIC programs in three States (Florida, Iowa, and Kentucky). Data were collected covering the three-year period 2000 to 2002. Records from the FSP and WIC programs were matched using probabilistic record linkage software from the U.S. Bureau of Census. Match results were used as estimates of multiple program participation within each State.

Two measures of multiple program participation are of interest in characterizing the experiences of program participants: contemporaneous participation and exposure. Contemporaneous participation is participation in multiple programs at a point in time; exposure is participation in multiple programs during an extended period, but not necessarily at the same time. In this study, rates of contemporaneous multiple program participation are obtained by matching FSP and WIC caseloads from a single month (December 2002). Rates of multiple program exposure during the three-year period from 2000 to 2002 are obtained by matching all persons participating in FSP at any time during the three-year period, to all persons participating in WIC at any time during the three-year period.

Main Findings

For the three States studied, the percent of FSP infants with contemporaneous participation in WIC during a single month ranged from 84 to 94 percent across States, with 89 to 96 percent of FSP infants exposed to WIC at some point during the three-year period. For FSP children, the rates of contemporaneous WIC participation ranged from 51 to 57 percent across States, with 61 to 74 percent exposed to WIC at some point during the three-year period. Nearly all FSP infants and children exposed to WIC had concurrent participation for at least some period of time.

Most FSP women who gave birth during the three-year period, 2000-2002, participated in WIC for some period of time (78 percent in Florida and 85 percent in Iowa).³ Half of FSP women with infants were enrolled in FSP prior to WIC. Among FSP women with infants who participated in WIC, 57 percent in Florida and 65 percent in Iowa participated in WIC during pregnancy and postpartum. However, more than one-quarter (26 percent in Florida and 28 percent in Iowa) participated in WIC only postpartum and not during the prenatal period.

³ These statistics could not be estimated for Kentucky.

While all FSP participants are income-eligible for WIC, only a subset of WIC participants is income-eligible for FSP.⁴ The percent of WIC participants with contemporaneous participation in FSP during a single month was estimated to be 28 percent in Florida, 26 percent in Iowa, and 45 percent in Kentucky, with somewhat higher rates for children than for women and infants.⁵ The percent of WIC participants exposed to FSP during the three-year period was 52 percent in Florida and 55 percent in Iowa (this statistic could not be estimated for Kentucky).

Participation histories were examined separately for FSP and WIC. The length of time participating in each program was measured by the total number of months of participation during the three-year period, which need not be continuous. During 2000-2002, women and children participated in FSP longer than in WIC, while infants participated in WIC longer than in FSP. This is consistent with program rules that limit women's participation to periods around childbirth, and is consistent with the decline in WIC participation as children age. Analysis of birth cohorts through age five shows that overall program participation (participating in either FSP or WIC) declines with age, with most of the decline due to declining WIC participation.

Multivariate analyses shows that the likelihood of WIC participation among FSP children declines with age and is negatively associated with residence in a metropolitan area. Hispanic children in Florida and Kentucky were more likely to participate in WIC than other racial/ethnic groups, and black children in Iowa and Kentucky were less likely to participate in WIC than other racial/ethnic groups. In all three States, the likelihood of WIC participation by FSP children is positively associated with the number of adults in the household, the number of children under age five, a married household head, and receipt of TANF. Medicaid enrollment is positively related to WIC participation in Iowa (the only State with Medicaid information). Since the analysis was limited to FSP participants, the TANF and Medicaid results suggest that WIC participation is more likely when children are enrolled in *multiple* other public assistance programs. Multivariate analyses of the covariates of WIC participation for FSP infants showed inconsistent results across States.

Because match rates are used as estimates of multiple program participation, it is important to consider the sensitivity of match results to match methods. This study found that probabilistic record linkage methods provide improvement in match rates over those obtained by simpler methods. The greatest improvement in match rates was for infants, whose records were often missing key identifying information. These results cannot be generalized to other States, however, because match results vary with the number and quality of available identifiers.

Although this study provides important information about multiple program participation and the timing of participation across programs, the three States included in the study are not representative of all States. In addition, the time period examined, from 2000 through 2002, was a period of low participation in both FSP and WIC, and may not provide rates of multiple program participation that would be observed in periods of greater participation.⁶

⁴ The income-eligibility cutoffs for FSP and WIC are 130 and 185 percent of the federal poverty guidelines, respectively.

⁵ For Florida and Iowa, the contemporaneous match rates were consistent with the overall rates of FSP participation reported in the WIC administrative data.

⁶ Average monthly FSP participation during 2000-2002 ranged from 17 to 19 million, compared to 25 to 27 million during 1992-1996 (USDA/FNS, 2004a). Average monthly WIC participation in 2000 was 7.1 million, having declined from a high of 7.4 million in 1997; WIC participation rose to 7.3 in 2001 and 7.4 in 2002. (USDA/FNS, 2004b)

The remainder of this chapter discusses previous studies of multiple program participation. Chapter 2 describes the selection of States for the study and the characteristics of the data. Chapter 3 describes methods of record linkage in general and the specific procedures for record linkage used for this study. Results are presented in chapter 4 and conclusions in chapter 5.

Previous Studies

The prevalence of shared clientele is well-documented for some social service programs. USDA has reported the percent of FSP participants receiving Aid to Families with Dependent Children/Temporary Assistance for Needy Families (AFDC/TANF), in the *Characteristics of Food Stamp Households* reports, since 1975. The Department of Health and Human Services (HHS) monitors multiple program participation in AFDC/TANF, the Food Stamp Program (FSP), and Supplemental Security Income (SSI) as part of a larger effort to report to Congress on indicators of welfare dependency.⁷

USDA estimates of the prevalence of AFDC/TANF participation among food stamp households are based on administrative data from the food stamp quality control system. These data measure contemporaneous multiple program participation and show that between 38 and 42 percent of food stamp households also received AFDC/TANF in the years from 1975 through 1995. After passage of welfare reform in 1996, the percentage of FSP households also receiving TANF declined to 35 percent in 1997, 27 percent in 1999, and 21 percent in 2002.

Participation in FSP by AFDC/TANF participants is more common than participation in AFDC/TANF by FSP participants. Indicators of multiple program receipt from HHS, based on the Current Population Survey, show the percentage of AFDC/TANF recipients also receiving food stamps ranged from 88 to 90 percent in the early 1990s and then declined (US DHHS, 2001).⁸ In 1999, 83 percent of TANF recipients also received food stamps while only 29 percent of FSP participants received TANF.⁹ The percentage of the total U.S. population receiving both AFDC/TANF and food stamps declined from 4.8 percent in 1993 to 2.4 percent in 1999.

Research on the dynamics of program participation, through the early 1990's, focused on AFDC/TANF or food stamps separately, rarely considering their interaction.¹⁰ Greater attention focused on the interaction of programs after passage of welfare reform in 1996 when administrative data showed large declines in shared clientele and unanticipated declines in FSP participation overall (USDA/FNS, 2003b). The interaction of AFDC/TANF and FSP derives in part from an integrated application process found in most States.¹¹ Even after welfare reform, individuals applying for cash

⁷ The Welfare Indicators Act of 1994 (Pub. L. 103-432) directed the Secretary of HHS to publish an annual report on welfare dependency. An advisory board identified 10 indicators of welfare dependence, including the indicator "Multiple Program Receipt" (US DHHS, 2000).

⁸ The Current Population Survey asks respondents about program participation during the past year.

⁹ Estimates from USDA and HHS differ slightly because USDA estimates are based on Food Stamp Quality Control Data (a sample of administrative records), while HHS estimates are based on survey data.

¹⁰ For example, Blank and Ruggles (1993) examined the duration of participation spells and triggers for program entry and exit but examined AFDC and food stamps separately.

¹¹ The information systems for food stamps and TANF are integrated in 39 States (US DHHS, 2003).

assistance (TANF) typically apply for a full package of benefits, including food stamps and Medicaid (Holcomb, et al., 2003). A number of studies examining the impact of the AFDC-to-TANF transition on FSP caseloads found evidence that TANF policies (reporting requirements, time limits, and sanctions) contributed to FSP caseload declines (Ziliak, Gunderson, and Figlio, 2000; Wallace and Blank, 1999; Gleason et al., 2001; Kornfeld, 2002; Currie and Groger, 2001).

There is little research concerning the prevalence of multiple program participation among the food assistance programs and this study addresses that gap. The main focus of this study is examination of the prevalence of participation in both the food stamp and WIC programs, the timing of participation across programs, and the characteristics of persons most likely to enroll in multiple programs.

In addition to examining the characteristics of multiple program participants, at least two other reasons have been cited for examining shared clientele among the FANPs, but they are not addressed in this study. First, it has been hypothesized that WIC caseload growth in the 1990s may have been influenced by decreased access to food stamps (Lee, et al., 2003). Second, concern has been expressed that increases in overweight and obesity among young children may be due to an abundance of food assistance (Besharov, 2002). All of these reasons for examining multiple program participation are motivated by the fact that the individual programs operate independently, and the combined provision of food assistance to households is not well understood.¹²

Income eligibility rules for the food assistance programs imply shared clientele. Income cutoffs for program eligibility are 130 percent of poverty for FSP, 185 percent of poverty for WIC, and 130 and 185 percent of poverty for free and reduced-price lunch, respectively. The extent of shared clientele, however, is limited by non-income eligibility criteria. While FSP enrolls persons of all ages, NSLP enrolls only school-age children, and WIC enrolls only pregnant and postpartum women, infants, and children up to age five. Eligibility criteria for FSP and WIC are shown in table 1.

Currently there are no administrative mechanisms to provide USDA with accurate and ongoing statistics on multiple program participation across the FANPs. Evidence of shared clientele in FSP and WIC is available from three sources – WIC administrative data, survey data, and record linkage studies – but all sources are known to have limitations.

WIC administrative data identify participants who are adjunctively income eligible due to participation in FSP, TANF, or Medicaid. Due to several reasons, however, estimates of multiple program participation based on adjunct income eligibility are lower bound estimates. Adjunct income eligibility may not be used in all cases for which it is applicable. Applicants to WIC may report only one adjunct program when they participate in more than one, because verification of one program is sufficient to establish WIC eligibility (or some local WIC agencies may be unable to enter all adjunct programs into their computer systems). And finally, WIC adjunct income eligibility is recorded at certification and does not reflect enrollment in adjunct programs after WIC certification.

Survey data also have limitations. Survey data have been found to underestimate program participation for single programs compared to administrative record counts. Data from the Survey of

¹² While operating independently, there are three main examples of systematic interaction between the FANPs: 1) WIC refers applicants to other social service programs, including FSP; 2) children in FSP households may be directly certified for NSLP without application; and 3) FSP participants are adjunctively income-eligible for WIC.

Table 1 – Eligibility for FSP and WIC

| Program | Eligibility criteria |
|--------------------|---|
| Food Stamp Program | <ol style="list-style-type: none"> 1) Income eligibility standards: <ul style="list-style-type: none"> ▪ Household gross income may not exceed 130 percent of the federal poverty guidelines; and ▪ Household net income may not exceed 100 percent of the federal poverty guidelines for households without an elderly or disabled member. Where gross income includes income from all sources; net income equals gross income less applicable deductions (the standard deduction, earned income deduction, dependent care deduction, excess medical expense deduction, shelter deduction, child support deduction). 2) Resource limit: a household otherwise eligible to participate is not eligible if resources exceed \$2,000; or \$3,000 if the household contains a member who is 60 years of age or older (certain resources are not counted such as a home and certain vehicles). |
| WIC Program | <p>Four eligibility criteria:</p> <ol style="list-style-type: none"> 1) Residency requirement in State where application is made. 2) Categorical eligibility for five groups: <ul style="list-style-type: none"> ▪ Pregnant women up to 6 weeks postpartum; ▪ Breastfeeding women up to 1 year after childbirth; ▪ Non-breastfeeding women up to 6 months after childbirth; ▪ Infants up to one year old; ▪ Children age one through four years (up to fifth birthday). 3) Income eligibility: family income less than or equal to 185 percent of the federal poverty guidelines or enrolled in Food Stamps, TANF, or Medicaid.¹ 4) Nutritional eligibility if applicant is determined to be at nutritional risk. |

Sources: Food Stamp regulations: 7 CFR 273.9; WIC regulations: 7 CFR 246.7.

¹ Food stamp and TANF income eligibility thresholds are below the WIC income cutoff of 185 percent of poverty. Medicaid eligibility thresholds may exceed 185% for pregnant women, infants, and children in some States due to the following provisions (NGA, 2001 and 2003):

1) The Federally mandated Medicaid eligibility threshold for pregnant women, infants and children through age 6 is 133 percent of poverty. States have the option to expand coverage beyond federal mandates. As of October 2002, the Medicaid eligibility threshold was above the WIC threshold of 185% of poverty for pregnant women in 13 States; for infants in 13 States; and for children under age 5 in 5 States. Two of the three States in this study have Medicaid eligibility above 185% poverty, with eligibility at 200% of poverty for pregnant women and infants in Iowa, and for infants in Florida.

2) Medicaid regulations require States to provide pregnant women and infants with continuous eligibility in Medicaid regardless of fluctuations in income that would otherwise make them ineligible, for 60 days. Some States provide continuous eligibility past the 60-day mandate. Florida Medicaid provides 12 months of continuous eligibility for children under age 5; Iowa Medicaid provides 12 months of continuous eligibility for pregnant and postpartum women and infants; Kentucky Medicaid provides 12 months deemed eligibility for infants when the mother is eligible at infant's birth (NGA, 2001 and 2003).

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). For programs with comparable underreporting, SIPP data provide reasonable estimates of multiple program participation. But due to differential underreporting of WIC, SIPP may be more useful for determining the percent of WIC participants receiving FSP, than for estimating the percent of FSP participants receiving WIC.

Record linkage studies, such as the current study, provide highly accurate estimates of multiple program participation by linking administrative data. They also have the advantage of providing longitudinal data for examination of the precise timing of participation across programs. The main limitations of record linkage are the difficulty in obtaining administrative data for research purposes

and the cost of processing large administrative files.¹³ These costs are not large when compared with survey costs, but it is unlikely that record linkage can be used to provide nationally representative estimates due to the logistics of coordinating with many States' agencies. Nonetheless, record linkage studies provide evidence of the statistics that could become available with greater integration of administrative databases.

Despite the limitations of the data, WIC administrative counts of adjunctively income eligible participants are useful for examining trends in multiple program participation over time. These data show a decline in the percent of WIC participants with reported participation in FSP, from 46 percent in 1988, to 37 percent in 1994 and 1996, 27 percent in 1998, and 20 percent in 2000 (Williams, et al., 1990; Randall, et al. 1995 and 1998; Bartlett, et al. 2000 and 2002).¹⁴ Only the 1988 data are reported separately by category of WIC participant: WIC children had the highest rate of FSP participation, at 52 percent.

Survey data show rates of multiple program participation in WIC and FSP that are somewhat higher than indicated by WIC administrative data (consistent with the limitations of the administrative data). Estimates from the National Health and Nutrition Examination Survey (NHANES-III, 1988-94) and SIPP (1993-95) show that 60 percent of WIC children also received food stamp benefits (Burstein, et al., 2000). Multiple program participation in FSP, WIC, and the National School Lunch and School Breakfast Programs, as indicated by SIPP and the Current Population Survey (CPS), is monitored by the USDA Food and Nutrition Service but is not publicly available.¹⁵

To our knowledge, there is only one previous record linkage study examining rates of multiple program participation in FSP and WIC. Lee et al. (2003) examined rates of participation in AFDC/TANF, FSP, and WIC for Illinois birth cohorts.¹⁶ From 1990 to 1996, the percent of birth cohorts participating in both FSP and WIC at any time before their second birthday rose gradually and then declined (25.5 percent in 1990, 27.9 percent in 1993, 25 percent in 1996). At the same time, the percent of birth cohorts participating in WIC only (no FSP participation) was constant during 1990-93 (21-22 percent) and then rose to 27.7 percent in 1996. The declining rate of FSP participation among WIC participants from 1994-96 preceded, but is consistent with, the trend in national WIC data.¹⁷

The current study is similar to Lee et al. (2003) in using linked administrative data to examine shared clientele between the FSP and WIC programs. This study, however, examines data from three States for a later time period (January 2000 – December 2002) and includes both women and children.

¹³ Administrative data also typically have fewer measures of individual and household characteristics for studying the covariates of program participation.

¹⁴ Bartlett et al. (2002) reports the rate of FSP participation by WIC enrollees may be biased because: a) 7.2 percent of WIC enrollees were missing data on adjunct program participation (i.e., the "yes/no" fields were blank); and b) there may be limits on the number of adjunct programs entered into computer systems by local WIC staff.

¹⁵ Correspondence from USDA, Food and Nutrition Service, Office of Analysis, Nutrition and Evaluation.

¹⁶ The study was funded by the Small Grants Program of USDA's Economic Research Service.

¹⁷ The percent of young WIC participants (age birth to 2-years-old) also participating in FSP was 56.8 percent in 1992, 53 percent in 1994, and 47.4 percent in 1996. (Authors' derivations from Lee et al., table 2).