APPENDIX A

REVIEW OF LITERATURE

Estimates of the number of people income eligible for WIC are calculated on the basis of *annual* family income. However, income eligibility for WIC is usually determined on the basis of a family's *monthly* income, although considerable flexibility exists in the income periods that may be used. This appendix reviews previous studies of two related topics: (1) the differences between poverty rates measured on the basis of monthly versus annual income; and (2) the employment, poverty, and welfare status of pregnant and postpartum women. To understand how these topics relate to estimating the number of people income eligible for WIC, it is important to distinguish between the following concepts: measures of *family income,* and measures of *family income relative to the poverty level.* A family's income relative to the poverty level can fluctuate either from changes in the family's income or from changes in the family's size. In general, the number of people income eligible for WIC may be underestimated by using annual poverty measures instead of monthly poverty measures for three reasons:

1. Income varies more on a monthly basis than on an annual one.

2. Most potential WIC eligibles are in families with a birth, which, by definition, have a change in their poverty status because their family size changes; therefore, fluctuations in poverty on a monthly versus annual basis may be even more pronounced in families with a birth.

3. Families with a birth in which the mother is employed may experience a drop in income if the mother decides to leave work when the child is born, which will increase income variability during the period around a birth.

The literature reviewed in this appendix is largely related to the first and third issues. No studies have looked at the effect of a change in family size on poverty rates specifically; one study of movements into poverty around birth does not distinguish the effects of changes in family size and income. Furthermore, all studies have focused on the poverty threshold. Monthly movements around the higher WIC eligibility threshold may exhibit different patterns.

In general, the literature finds that poverty rates are higher when measured on a monthly basis than on an annual basis and that fluctuations in income and associated spells of poverty are related to certain family characteristics.

Pregnancy and birth tend to have a negative impact on family income and poverty status. Women employed before childbirth tend to begin working again within a few months after childbirth, however, and this suggests that the drop in income tends to be brief.

DIFFERENCES BETWEEN ANNUAL AND MONTHLY MEASURES OF POVERTY

Before the first Survey of Income and Program Participation (SIPP) panel (1984), reliable monthly analyses of poverty were impossible because no ongoing national survey collected income data at monthly intervals. Poverty rates were measured using the Current Population Survey (CPS), which collects data in March of each year on annual income for the previous calendar year. Analyses of SIPP data in the past decade have confirmed that, as expected, income and poverty fluctuate more on a monthly basis than on an annual basis. One implication is that monthly fluctuations in income may lead the average monthly number of people eligible for WIC to be higher than the number estimated using annual income data.

This section first reviews the literature on SIPP- versus CPS-based measures of annual poverty to show how, in general, measures of poverty using SIPP differ from those using CPS data, even when the income period is the same. It then examines the literature on monthly versus annual measures of poverty using SIPP. Finally, the relation between length of poverty spells and household characteristics is discussed.

SIPP Versus CPS Measures of Annual Poverty

The official poverty estimates that the federal government issues each year are based on the March Demographic Supplement of the CPS.[1] Poverty status for each family in the CPS is determined by comparing its annual income reported for the previous calendar year with the appropriate annual poverty threshold, which is determined by the size of the family at the time of the survey

[1]The official poverty thresholds are published each year by the U.S. Bureau of the Census in *Poverty in the United States* (Census Series P-60).

interview.[2] In SIPP, however, income information and family composition are collected on a monthly basis. Therefore, annual poverty estimates for SIPP generally are constructed by comparing the sum of monthly family income with the sum of monthly poverty thresholds over the year, on the basis of the family characteristics in each month.[3] SIPP also has a shorter recall period and more detailed questions on income sources than the CPS.

Three studies find large differences between SIPP and CPS estimates of annual poverty (see Table A.1). Ruggles and Williams (1986), using 1984 SIPP data and the methodology described previously, find a 3.4 percentage point difference between SIPP and CPS family poverty rates (11.0 percent in SIPP, versus 14.4 percent in CPS). Coder et al. (1987) find a smaller difference between SIPP and CPS poverty estimates than do Ruggles and Williams. Their 1983-1984 averaged annual poverty estimate from SIPP is 1.8 percentage points below the 1983-1984 CPS estimate (13.0 percent in SIPP, versus 14.8 percent in CPS). The difference that Coder et al. find probably is smaller than the difference Ruggles and Williams find because Coder et al. define the SIPP annual estimate more similarly to the CPS estimate than do Ruggles and Williams. In particular, Coder et al. force the SIPP estimates to be based on a fixed household composition and remove differences in how the two surveys treat lump sum and self-employment income.[4] Coder et al. propose the following explanations for the differences between SIPP and CPS estimates:

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[2]For instance, the 1992 annual poverty estimates are derived from the March 1993 CPS. To calculate the 1992 poverty figures, the family composition is fixed as of the March 1993 interview month, and its poverty status is then determined on the basis of the poverty threshold for its fixed family size and the family's reported 1992 income. This method assumes that all people in the family as of March 1993 were in the family in all of 1992.

[3]Since poverty thresholds are determined on an annual basis, monthly poverty thresholds usually are constructed by dividing the annual thresholds by 12 and adjusting them for monthly changes in the Consumer Price Index.

[4]When Coder et al. do *not* define their SIPP estimate in the same manner as the CPS, they obtain a poverty rate difference from the CPS of 2.4 percentage points, which is more consistent with the findings of Ruggles and Williams.

TABLE A.1

COMPARISON OF SIPP- AND CPS-BASED ESTIMATES
OF PERSONS IN POVERTY

Year	SIPP	CPS	Difference
1984	11.0	14.4	3.4
1983-1984	13.0	14.8	1.8
1990	10.5	13.5	3.0
1990 (adjusted for attrition)	11.0	13.5	2.5

SOURCES: 1984: Ruggles and Williams (1986), Table 1.; 1983-1984: Coder et al. (1987), Table 6; 1990: Lamas et al. (1994), Table 10.

- SIPP has better reporting of transfer income--income that primarily goes to the poor--than the CPS.[5]

- SIPP does not allow the reporting of negative self-employment income, but the CPS does.

- Differences may arise in the samples because of attrition in SIPP's longitudinal data--only persons interviewed in each of the first three interview periods are used for the estimation.

Lamas et al. (1994), using 1990 SIPP data, find a 3.0 percentage point difference between SIPP and CPS poverty estimates (10.5 percent in SIPP, versus 13.5 percent in CPS). When they fix the family composition to mimic the CPS poverty estimate in the same manner as Coder et al., the difference between SIPP and CPS falls to 2.5 percentage points. Lamas et al. find that changes in household composition, survey attrition, and nonreporting of negative self-employment income in the SIPP explain only about one-third of the difference between the SIPP and CPS poverty estimates.[6] Lamas et al. conclude that the observed difference in the poverty estimates from SIPP and CPS is largely the result of better reporting of income in SIPP among poorer households.

Coder and Scoon-Rogers (1994) find that more sources of income are reported in SIPP than in the CPS and that reporting is better for sources such as social security, Supplemental Security Income, unemployment compensation, veterans' benefits, and child support payments, all of which are important to low-income families. However, reporting of AFDC and other cash welfare is no more complete in SIPP than in the CPS.

Thus, in general, the poor look less poor in SIPP than in the CPS. However, the extent to which the same finding applies to the WIC-eligible population,

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[5]The better reporting of means-tested income in SIPP often is attributed to the survey's shorter recall period--only four months--and the more detailed questions that SIPP asks.

[6]When Lamas et al. control for these factors, the difference decreases by about one percentage point. Survey attrition and family composition each account for about half a percentage point. The effect of self-employment income is minimal.

who may have incomes as high as 185 percent of the poverty level, cannot be determined from the existing literature.

Monthly Versus Annual SIPP Poverty Measures

Using estimates of poverty from the 1983-1984 SIPP, Coder et al. (1987) find that annual estimates tend to underestimate the number of persons in poverty at any time during a particular year. They find that, of those in poverty in any month, only 46.5 percent are in on an annual basis. In addition, only 27 percent of those who are ever poor are poor in all 12 months (see Table A.2).

Ruggles and Williams (1986) demonstrate that individuals experience substantial variations in income on a month-to-month basis. Using 1984 SIPP data, they examine four measures of poverty: (1) an annual poverty rate, based on family income over the year as a whole (the same approach used with the CPS to calculate official poverty estimates); (2) an "ever poor" rate, showing the proportion who are poor for at least 1 month during the year; (3) an "always poor" rate, showing the proportion who are poor all 12 months during the year; and (4) an average of the poverty rates for each specific month during the calendar year. Table A.3 shows each of these four poverty rates.

The most striking point in Table A.3 is the large amount of within-year movement into and out of poverty for all subgroups of the population.[7] For example, 26 percent of all families are poor in at least one month in 1984, while only 6 percent are poor for the entire year. Because WIC eligibility is most often determined on the basis of monthly income, while official WIC estimates of eligibles are determined on the basis of annual income, the most relevant comparison in Table A.3 is between the average monthly poverty rate and the annual poverty rate. For all persons, the average monthly poverty rate is 3 percentage points higher than the annual rate (14 percent, versus 11 percent). Furthermore, among all subgroups examined, the average monthly poverty rate is higher than the annual poverty rate. This divergence suggests that current estimates of WIC eligibles based on annual income may underestimate the average number of WIC eligibles in any given month during the year.

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[7]Ruggles and Williams examine the following family types: married couples with children, single parents with children, unrelated individuals (all persons not living in families), and other persons (all persons living in families, but not in one of the previously mentioned family types).

TABLE A.2

PERSONS BY POVERTY STATUS, BY NUMBER OF MONTHS IN POVERTY:
1984 SIPP LONGITUDINAL FILE
(Thousands)

In Poverty in 1 or More Months	Number	Percent
Not Poor on an Annual Basis	32,653	53.5
Poor on an Annual Basis	28,336	46.5
Poor all 12 months	16,582	27.2
Not poor all 12 months	11,754	19.3
Total	**60,989**	**100.0**

SOURCE: Coder et al. (1987).

TABLE A.3

ALTERNATIVE RATES OF PERSONS IN POVERTY, BY FAMILY TYPE: 1984 SIPP
(Percentages)

Family Type	Annual Poverty Rate	Poor All 12 Months	Poor in Any Month	Average Monthly Poverty Rate
Married Couples with Children	7.4	2.8	24.3	10.2
Single Parents with Children	39.9	25.8	60.8	42.7
Unrelated Individuals	17.7	11.0	35.9	21.9
Other Person	4.5	2.0	14.3	6.3
All Persons	**11.0**	**5.9**	**26.2**	**13.7**

SOURCE: Ruggles and Williams (1986), Table 1.

Doyle and Trippe (1991) support the findings of Coder et al. and Ruggles and Williams. Using 1985 and 1986 SIPP data, they find that, from July 1985 to June 1986, the number of adults in households in poverty on an annual basis is much lower than the number in poverty in at least one month (8 percent, versus 19 percent).

Relationship Between Length of Poverty Spells and Household Characteristics

Ruggles and Williams (1986) show that the frequency of within-year movements into and out of poverty differs across population subgroups, with single-parent families having the most stable (and consistently low) incomes, and with married couples with children experiencing the greatest fluctuations. Ruggles and Williams theorize that single-parent families have the most stable income because they tend to rely on fixed government transfers, such as welfare. Elderly people make up the next most stable group, because they tend to rely on fixed incomes, such as social security or pensions. This suggests that, of the WIC eligibles not counted in eligibility estimates determined on the basis of annual poverty rates, a disproportionate number could be from married families with children.

Ruggles (1988) again uses 1984 SIPP data to examine families experiencing short spells of poverty and compares their characteristics with those of families who tend to remain in poverty for longer periods. In general, she finds that short spells--less than 6 months--are common and make up a substantial proportion of all poverty spells. She finds that, of the persons in families in SIPP entering poverty for a known duration of time, 40 percent leave poverty within 6 months (Table A.4).[8] She also finds that the characteristics of those who are poor for a short period of time differ considerably, on average, from the characteristics of the longer-term poor. Ruggles finds that the probability of leaving poverty in the short run is related to the probability that one's family will gain earnings in the near future. Specifically, families with a member who has recently become unemployed are particularly likely to leave poverty quickly, since most unemployed people find reemployment fairly rapidly. On the other hand, those who are less likely to have earnings in the short run--female-headed families (especially with children) and elderly people--are more likely to have long poverty spells (Table A.4).

[8]The date of entry into or exit from poverty is known only if the event occurred within the dates of the SIPP panel.

TABLE A.4

PERSONS IN FAMILIES WITH A LOW-INCOME SPELL (BELOW 100 PERCENT OF POVERTY), BY DURATION OF SPELL AND FAMILY TYPE

Duration of Spell	All Families	Families with Children	Female-Headed Families	Families Losing Earnings	Families with AFDC	Families with Food Stamps	Families with Elderly
Less than 6 Months	31.3	29.9	24.7	39.7	11.4	13.5	25.9
6 or More Months	46.3	48.6	57.2	40.3	78.1	73.9	54.8
Unknown Duration	22.3	21.6	18.4	20.0	10.5	12.6	19.2

SOURCE: Ruggles (1988), Tables 4 and 5. Calculated from a 16-month sample drawn from the first five waves of the 1984 SIPP.

AFDC = Aid to Families with Dependent Children.

In sum, the literature discussed here indicates that poverty estimates based on annual income tend to underestimate the percentage of people in poverty in a given month. The extent to which annual measures of poverty underestimate the WIC-eligible population is likely to differ among subgroups of the WIC-eligible population, with families that tend to have short spells of poverty or near poverty--married couples with children and the unemployed--the *least* likely group to be captured accurately by annual measures of eligibility. Further research on this issue is warranted given that, in 1988, roughly 50 percent of women on WIC prenatally were married, and more than 50 percent were employed during the 12 months prior to birth (Gordon and Nelson 1995). The next section investigates whether differences between annual and monthly measures of poverty and income are likely to be even more of an issue for families with a birth due to changes related to the birth itself.

EMPLOYMENT, POVERTY, AND WELFARE STATUS OF PREGNANT/ POSTPARTUM WOMEN

Families with a birth may be more likely than the general population to become poor, at least temporarily, for two principal reasons: (1) adding an infant changes the family's poverty threshold; and (2) if employed, the mother may take a leave from work or stop working altogether after the birth. Although no previous research specifically focused on the income of families during a pregnancy and the year after a birth, several studies examined the employment, poverty, and welfare status of pregnant and postpartum women. Most studies focused on the effects of birth on the employment status of women. Since the loss or gain of employment is a key determinant of movements into and out of poverty, studies of changes in the employment status of women around birth give insight into how pregnancy and birth may affect movements into and out of poverty (and, similarly, how they may affect WIC eligibility). However, the confounding effect of the change in family size on poverty is not always distinguished from changes in income.

Impact of the Entrance of a New Baby into a Family on Poverty and Welfare Status

Ruggles and Williams (1986) find that a relatively large number of persons become poor in the same month as a birth in the family. Using 1984 SIPP data, they estimate that 13 percent of those in families experiencing a birth became poor the same month, compared with a monthly poverty entry rate of about 2 percent for the population as a whole (Table A.5). Among female-headed families, the percentage entering poverty increases to 25 percent. This large coincidence of births and transitions into poverty suggests one or both of the following: postpartum income may be lower than prebirth income, or the increase in family size raises the family's poverty threshold to the point

that the family's income is now below the poverty line. If income changes, estimates of WIC income-eligible pregnant women that are based on incomes of families with infants may be too high--families that are eligible after the birth may have been ineligible before the birth.[9] Ruggles and Williams caution, however, that they do not examine the duration of the poverty spells associated with these transitions. In addition, they do not examine whether the transition into poverty is a result of a change in family size, family income, or both.

Ruggles and Williams (1987), again using 1984 SIPP data, find that having a baby is not a major factor in transitions onto the Aid to Families with Dependent Children (AFDC) or Food Stamp programs. Changes in employment status or marital status are associated with a larger proportion of transitions on and off these programs. Of all persons in a family with a new baby, 1.1 percent begin receiving food stamps in that month, and 0.8 percent begin receiving AFDC in that month; however, 2.1 percent stop receiving food stamps, and 0.4 percent stop receiving AFDC. Ruggles and Williams caution that their results are based on fairly small unweighted sample sizes. They also caution that there may well be lags between having a baby and the beginning of assistance receipt. This might occur either because families have some resources on which they can rely for short periods or because it takes time to learn about and apply for aid.

[9] WIC policy changed in December 1994 so that the fetus of a pregnant woman is counted as a family member when determining a family's poverty threshold. Before then, WIC income eligibility was also affected by the change in family size at birth.

TABLE A.5

COINCIDENCE OF BIRTH AND TRANSITIONS INTO POVERTY

Family Type	Percentage Who Become Poor This Month
Persons in All Families	2.1
Persons in All Families with a Birth	12.9
Persons in a Female-Headed Family with a Birth	24.6

SOURCE: Ruggles and Williams (1986), Tables 3 and 4.

Employment Status of Postpartum Women

The employment status of a woman before childbirth is a good indicator of whether the woman will work after childbirth. In general, a long line of research has shown that past labor supply behavior strongly predicts future behavior, especially for women (see, for example, Heckman and Willis 1977; and Nakamura and Nakamura 1994). Some women do not work either before or after the birth; their incomes are not likely to change much around birth, unless their family composition changes through marriage or establishing a new household. The studies described next focus on women who worked before the birth. In general, one group returns to work quickly, and another group remains out of the labor force for several years. None of these studies focus on low-income households; instead, they consider the employment patterns of all pregnant and postpartum women. One study, however, did look at the effects of education--a variable associated with income.

Joesch (1994) uses the 1983-1987 waves of the Panel Study of Income Dynamics to analyze how soon after giving birth women start paid work and to identify factors related to this decision. She finds that, of women who work before childbirth, 20 percent return to work within 1 month of childbirth, 53 percent return within 6 months, and 61 percent return to work within 1 year. Financial considerations seem to play an important role in the timing of women's employment after childbirth. In particular, women from families that own a home and must therefore make mortgage payments, those with higher income tax rates, and those working during pregnancy all start work sooner; higher family income from sources other than the women's own earnings has the opposite effect.

Klerman and Leibowitz (1994) use June CPS data from 1979 to 1988 to explore the patterns of work and employment following childbirth and to describe the patterns of paid and unpaid maternity leave; their study does not control for work before childbirth. They find that half of all mothers are at work by the time their child is 4 months old. Furthermore, women who go to work soon after childbirth account for nearly all of the women who work within the year after giving birth. Most of these women were employed before the birth, although they may have been on paid or unpaid leave from work. In fact, Klerman and Leibowitz characterize women's work behavior as "nearly all or nothing"--either they keep their predelivery jobs and return to work quickly, or they do not work at all in the year following delivery. They also find that family demographics are associated with the timing of return to work in two ways: (1) the more children a woman has, the less likely it is that she will return to work; and (2) unmarried black mothers are less

likely to work, but married black mothers are just as likely to work as married or unmarried white mothers.

Even (1987), using the 1973 National Survey of Family Growth data, finds that the likelihood of a woman returning to work after childbirth, given that she has not yet returned, decreases rapidly with time, resulting in an L-shaped distribution. This suggests that most women who will return to work will do so quickly.

Klerman (1993), using National Longitudinal Survey of Youth (NLSY) data, finds that the distribution of return to work for women employed before childbirth is more complicated than the simple L-shaped distribution presented by Even. Klerman's data, which are more timely and accurate than Even's (because they measure labor market activity in weeks, not months), show varying distributions of return to work that depend highly on the woman's maternity leave status (that is, whether she quit, never worked, has unpaid leave, or has paid leave). The return-to-work distributions of women on paid or unpaid leave are multimodal (they tend to return to work during the first, sixth, and ninth weeks postpartum) instead of L-shaped. On the other hand, the return-to-work distribution of women who quit work before the birth or never worked before the birth is very flat.

Klerman and Leibowitz (1995) examine differences in return to work after childbirth by education level, again using data from the NLSY. They cross-tabulate a woman's level of work activity 12 months before childbirth with her work activity 6 months after childbirth. They find that women with less formal education are less likely to work before childbirth and that most such women also do not work after childbirth. In particular, 55 percent of high school dropouts, 27 percent of high school graduates, and 20 percent of college graduates did not work before childbirth. Among women who were employed before childbirth, less-educated women are more likely to quit working after childbirth. For example, among high school dropouts working full-time before childbirth, 46 percent were not working 6 months after childbirth; among college graduates, only 25 percent were not working.

Although the literature shows that many women return to work fairly quickly following childbirth, it also shows that roughly half of the women employed during pregnancy do not return to work for 6 months or more following the birth. These women's families experience a drop in income. We do not know, however, how many women in this group become eligible for WIC as a result.

CONCLUSIONS

Overall, the literature agrees that annual measures of income and poverty do not capture the considerable amount of income fluctuations and movements in and out of poverty that occur on a monthly basis, especially among married couples with children, the unemployed, and families with a birth. Among families with a birth, changes in poverty status are caused by a change in family size, a change in family income, or both. Although the literature suggests that families with a birth are more likely to enter poverty than other families, it does not attribute the change in poverty status specifically to changes either in family size or in family income. Literature on the employment status of pregnant and postpartum women, however, suggests that family income for families with a birth may tend to fall because employed women often take leave after giving birth. Because these studies do not focus on the low-income population, however, they are inconclusive as to the impact of pregnancy and birth on income eligibility for WIC.

APPENDIX B

FILE DOCUMENTATION

This appendix describes the creation of the databases used for the analyses presented in Chapters III to V of this report.[1] The analyses required two distinct databases constructed from the 1990 and 1991 panels of the Survey of Income and Program Participation (SIPP). The first set of files was created for the analyses presented in Chapter III, comparing WIC eligibility estimates on the basis of monthly versus annual income and comparing the number of WIC eligibles estimated from SIPP to the number of participants estimated from administrative data. The second database was created for the analyses of income dynamics surrounding a birth presented in Chapter IV. (Both databases were subsequently used for the analyses of patterns of program participation presented in Chapter V.)

Before describing the files in detail, the next section discusses the SIPP longitudinal files and the weights available in SIPP for longitudinal data analysis, in order to provide context for the discussion of the weights used in the two analysis files. The second section describes the creation and contents of the database designed for the analyses presented in Chapter III. The subsequent section describes the creation and contents of the database designed for the analyses presented in Chapter IV.

Weights In SIPP Longitudinal Files

Upon completion of the final wave of interviews in a given panel, the U.S. Census Bureau constructs a full-panel longitudinal research file. To construct these files, the Census Bureau links the data collected for each sample person over the life of the panel; each record contains the stream of data for a single person. After creating these full-panel records, the Census Bureau performs a series of edits and imputations designed to "correct" internal inconsistencies found in the originally collected data. During file processing, the Census Bureau also constructs three different weight variables for each full-panel file: (1) for the first calendar year covered by the panel, (2) for the second calendar year covered by the panel, and (3) for the full panel. For each period (each of the 2 calendar years and the full panel), only persons with no missing months are included in the weighted sample for that period. For example, a person in the 1990 panel who is a nonrespondent in one interview in late 1991 but present throughout the rest of the panel would receive a zero weight for the full panel and for calendar year 1991 but would receive a positive weight for calendar year 1990.

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[1]Chapter II presents a more general discussion of these files, along with a description of SIPP, from which they were constructed.

Each weight incorporates separate adjustments for initial nonresponse and for sample attrition. Each also includes a poststratifying adjustment that forces the weighted sample to "look like" the reference population as of January in the reference period. For example, the 1990 SIPP full-panel weights are controlled to January 1990 population estimates along key dimensions, and the 1991 calendar year weights (in both the 1990 SIPP panel and the 1991 SIPP panel) are controlled to January 1991 population estimates. Because any children born after January were not part of the January population, the Census Bureau assigns those infants zero full-panel weights, as well as zero weights for the year in which they were born. However, for this study, the number of infants in each month of the calendar year, including those born during the year, must be estimated. This study assigned weights to infants born during the year on the basis of weights that the Census Bureau assigned to their parents (see the next section for details).

Creation of the First (Chapter III) Analysis Database

The four data files created for the analyses presented in Chapter III each cover one of three calendar years (1990, 1991, and 1992), with monthly data describing income, program participation, and family composition for a representative sample of the U.S. population. They also contain information about each person's family in March of the subsequent year and what the family's income would have been if its composition had been unchanged during the prior (reference) year; this information mimics the data available in the March Current Population Survey (CPS). These files were designed for the specific purpose of comparing SIPP-based and CPS-based measures of income and program participation.

a. Detailed Description of File Creation

Using the 1990 and 1991 panels, we created four separate calendar year files. We created the 1990 calendar year file from the 1990 panel. We created two separate 1991 calendar year files from the 1990 and 1991 panels, respectively.[2] We created the 1992 calendar year file from the 1991 panel. For each of these files, we extracted information for each month of the reference calendar year and for March of the following year (13 months of data in total). Thus, the 1992 analysis file contains data for each month of 1992 (slots 1-12) and data for March 1993 (slot 13).

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[2]Data from these two files were ultimately pooled for the 1991 estimates presented in this report. Analysis weights from the two files were adjusted by factors proportional to each file's unweighted sample size.

We created the files in four steps, as follows:

1. ***Create the Initial Extract.*** We extracted data needed for our analyses for each person in the file who was present in the SIPP in the second March or at least 1 month during the previous calendar year.

2. ***Identify the Analysis Subsample and Compute Poststratification Factors.*** We then created a subset of the sample, including only those persons in households where all adults (age 15 and over) are in the SIPP sample for the entire calendar year and the following March, to ensure that we had income data for the full calendar year.[3] The subsample contained in the analysis files we created does not coincide with any of the subsamples defined by the U.S. Census Bureau. We therefore computed adjustment (poststratification) factors to be applied to the weights provided by the Census Bureau to compensate for the subsampling we performed. The weighting adjustment factors poststratify the analysis subsample up to full sample control totals using age (13 categories), race (3 categories), and gender. Poststratification factors were computed using the January sample before and after subsetting. Tables B.1 to B.4 show the poststratification factors used for our analyses.

3. ***Compute Weights for Infants Born During the Year.*** Because the Census Bureau defines the population represented by its calendar year sample as the resident, noninstitutional population as of January, it does not assign calendar year weights to any children born during the year after January. To include infants born during the year in our analyses, we assigned weights to these infants using procedures similar to those used in the Panel Study of Income Dynamics (PSID).

[3]All children in the sample had to be present for the full calendar year, except infants. They were included if they had full data after they first appeared during the year, and if there were data on the adults in their household for the full 13 months.

TABLE B.1

POSTSTRATIFICATION FACTORS APPLIED TO THE 1990 CALENDAR YEAR FILE DRAWN FROM THE 1990 SIPP PANEL

		Male			Female		
Age	Total	Black	Hispanic	Other	Black	Hispanic	Other
Total	1.1655	1.2880	1.3540	1.1469	1.2264	1.2732	1.1350
0 - 4	1.1470	1.2692	1.3126	1.1163	1.2322	1.2811	1.0999
5 - 9	1.1388	1.2675	1.3039	1.0986	1.2082	1.2511	1.1142
10 - 14	1.1556	1.2549	1.3089	1.1072	1.2792	1.2221	1.1387
15 - 19	1.2687	1.3954	1.6218	1.2150	1.2993	1.4014	1.2457
20 - 24	1.3168	1.3916	1.6949	1.3174	1.3176	1.4435	1.2570
25 - 29	1.1880	1.3730	1.4226	1.1789	1.1977	1.2577	1.1438
30 - 34	1.1386	1.2729	1.3300	1.1186	1.1415	1.2319	1.1154
35 - 39	1.1298	1.2302	1.2197	1.1180	1.2210	1.2107	1.1030
40 - 44	1.1553	1.2483	1.2635	1.1271	1.2316	1.2765	1.1476
45 - 49	1.1613	1.1759	1.3891	1.1427	1.3606	1.2457	1.1371
50 - 59	1.1371	1.3269	1.3116	1.1320	1.1703	1.2509	1.1041
60 - 69	1.1206	1.2264	1.1521	1.1350	1.1625	1.2611	1.0895
70+	1.1488	1.2324	1.1625	1.1556	1.2116	1.2061	1.1316

TABLE B.2

POSTSTRATIFICATION FACTORS APPLIED TO THE 1991 CALENDAR YEAR FILE DRAWN FROM THE 1990 SIPP PANEL

		Male			Female		
Age	Total	Black	Hispanic	Other	Black	Hispanic	Other
Total	1.1574	1.2147	1.2855	1.1423	1.2207	1.2696	1.1341
0 - 4	1.1597	1.2619	1.2647	1.1249	1.3857	1.3127	1.1008
5 - 9	1.1290	1.2021	1.2440	1.0989	1.2342	1.1966	1.1043
10 - 14	1.1484	1.2049	1.2992	1.1126	1.2073	1.2743	1.1302
15 - 19	1.2356	1.2664	1.4043	1.2078	1.2489	1.4087	1.2136
20 - 24	1.3082	1.2768	1.5018	1.2977	1.2027	1.4855	1.3056
25 - 29	1.2010	1.2396	1.3085	1.1917	1.2213	1.2757	1.1819
30 - 34	1.1298	1.1807	1.3023	1.1401	1.1277	1.1712	1.0920
35 - 39	1.1239	1.1678	1.2457	1.1011	1.1670	1.3002	1.1118
40 - 44	1.1388	1.1737	1.2109	1.1310	1.2222	1.1772	1.1227
45 - 49	1.1545	1.2140	1.2961	1.1298	1.3249	1.2086	1.1404
50 - 59	1.1411	1.2162	1.2384	1.1179	1.2113	1.3238	1.1298
60 - 69	1.1079	1.1521	1.1101	1.1213	1.1634	1.1720	1.0840
70+	1.1243	1.2004	1.1310	1.1242	1.2007	1.1494	1.1120

TABLE B.3

POSTSTRATIFICATION FACTORS APPLIED TO THE 1991 CALENDAR YEAR FILE DRAWN FROM THE 1991 SIPP PANEL

		Male			Female		
Age	Total	Black	Hispanic	Other	Black	Hispanic	Other
Total	1.1529	1.2437	1.2504	1.1369	1.2273	1.2222	1.1294
0 - 4	1.1455	1.1993	1.2362	1.1242	1.2823	1.2547	1.0999
5 - 9	1.1369	1.2346	1.1948	1.1009	1.2925	1.2221	1.1020
10 - 14	1.1394	1.2549	1.1334	1.1251	1.2559	1.1553	1.1114
15 - 19	1.2186	1.2364	1.3812	1.2024	1.2456	1.4248	1.1800
20 - 24	1.3159	1.3011	1.4843	1.2915	1.1882	1.4825	1.3273
25 - 29	1.1827	1.2139	1.3719	1.1737	1.2487	1.1284	1.1637
30 - 34	1.1341	1.3006	1.1564	1.1182	1.2362	1.2091	1.1005
35 - 39	1.1105	1.2172	1.2414	1.1007	1.1254	1.1680	1.0890
40 - 44	1.1357	1.1561	1.1966	1.1171	1.3261	1.2381	1.1147
45 - 49	1.1421	1.3119	1.2553	1.1150	1.1253	1.2451	1.1430
50 - 59	1.1220	1.2711	1.1465	1.1208	1.1902	1.2017	1.0983
60 - 69	1.1065	1.2115	1.1545	1.0955	1.2836	1.0536	1.0918
70+	1.1401	1.3858	1.2338	1.1370	1.1137	1.1324	1.1298

TABLE B.4

POSTSTRATIFICATION FACTORS APPLIED TO THE 1992 CALENDAR YEAR FILE DRAWN FROM THE 1991 SIPP PANEL

		Male			Female		
Age	Total	Black	Hispanic	Other	Black	Hispanic	Other
Total	1.1434	1.2073	1.2032	1.1338	1.1893	1.1620	1.1287
0 - 4	1.1420	1.2314	1.1621	1.1139	1.2494	1.1810	1.1217
5 - 9	1.1191	1.1779	1.1978	1.1189	1.1146	1.1040	1.0957
10 - 14	1.1254	1.1979	1.0982	1.1024	1.1854	1.2083	1.1160
15 - 19	1.1908	1.2401	1.2423	1.1627	1.2674	1.2035	1.1804
20 - 24	1.3041	1.2235	1.4970	1.3132	1.2801	1.2320	1.2887
25 - 29	1.2064	1.3241	1.3015	1.1985	1.2415	1.1787	1.1847
30 - 34	1.1257	1.1377	1.1514	1.1250	1.1535	1.1655	1.1116
35 - 39	1.1139	1.2140	1.1279	1.1007	1.1631	1.1652	1.0994
40 - 44	1.1058	1.1530	1.1367	1.0891	1.1516	1.1213	1.1069
45 - 49	1.1297	1.2435	1.1722	1.1281	1.1073	1.1204	1.1203
50 - 59	1.1087	1.2163	1.1809	1.0930	1.1629	1.0856	1.1054
60 - 69	1.0911	1.0868	1.0979	1.1045	1.1491	1.1451	1.0704
70+	1.1455	1.2781	1.1376	1.1472	1.2285	1.1298	1.1314

After computing poststratified calendar year weights for all members of our analysis subsample, we identified infants born during the reference year to whom the Census Bureau had not already assigned weights. (In some cases, infants born in January were assigned weights by the Census Bureau.) Using identification variables in the SIPP, we identified each infant's parents and assigned each infant an analysis weight as follows:

- If a child was born to a couple, both of whom had positive (nonzero) analysis weights, we assigned that infant the average of the parents' analysis weights.
- If a child was born to a couple where only the mother had a positive (nonzero) analysis weight, we assigned that infant the mother's analysis weight.
- If an infant was born to a couple where only the father had a positive (nonzero) analysis weight, we assigned that infant a weight of 0 (zero).
- If a child was born to a single mother who had a positive (nonzero) analysis weight, we assigned that infant the mother's analysis weight.
- In the rare cases where an infant was found living with a father and no mother, we assigned that infant the father's analysis weight.
- In all other cases, we assigned the infant an analysis weight of 0 (zero).

We identified an infant's mother using information from any month where we found valid parent identification variables. When the parent identification variables pointed to a father, we used the spouse identification variables on the father's record to find the mother (if present).[4] There were a small number of

[4]In a small number of cases, invalid data were found in the spouse identification variables provided by the Census Bureau. If the father reported being married and living with his spouse, we attempted to find the mother by identifying a woman living at the same address as the child and father who

infants with no designated parent. We assume these to be infants living with nonparent guardians and did not assign them weights.

4. ***Create the Analysis Files and Remaining Analysis Variables.*** In the last step, we generated any remaining analysis variables not already present on the SIPP. This included a set of variables that attempted to mimic CPS survey and measurement methods using data from the SIPP. In particular, after subsetting the file, we fixed the family's composition in March and computed annual family income and poverty measures on the basis of that fixed family composition. We also computed monthly poverty measures on the basis of actual family composition for each month.[5]

The final analysis files used in Chapter III included the variables listed in Table B.5.

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also reported being married and living with her spouse. We assumed that the father's current wife was the mother of the identified child. The Census Bureau currently is working to correct the invalid data on their files.

[5]The official poverty statistics published by the Census Bureau use a different set of poverty thresholds than those used in the administration of the WIC program. WIC program administration uses the U.S. Department of Health and Human Services (DHHS) poverty guidelines released each February. The difference between the two sets of thresholds is in the implicit family size adjustment used. In addition, the WIC program implements the DHHS guidelines on July 1, at a 6-month lag after the Census Bureau poverty threshold changes, and that is mimicked here. The database includes both sets of poverty thresholds, but the analyses presented on the basis of this file are all based on the DHHS poverty guidelines, as implemented in the WIC program.

TABLE B.5

SELECTED VARIABLES INCLUDED IN FIRST ANALYSIS DATABASE

Name	Source	Description
CY	CREATED	Calendar year
PANEL	CREATED	Panel year
SUSEQNUM	SIPP	Sequence number of person
ROT	SIPP	Rotation group
SU-ID	SIPP	Sampling unit identifier
PP-ENTRY	SIPP	Address ID when the person entered the SIPP universe
PP-PNUM	SIPP	Person number
HH-ADDID(m)	SIPP	Address ID for this month
PP-MIS(m)	SIPP	Person's interview status for this month
FNLWGT	SIPP	Person's calendar year weight for the year in the variable CY
REWGT	CREATED	Poststratification factor to adjust for MPR subsetting from the Census Bureau Full Calendar Year sample
SEX	SIPP	
RACE	SIPP	
ETHNICTY	SIPP	
RRP(m)	SIPP	Relationship to reference person for this month
AGE(m)	SIPP	Age for this month
MS(m)	SIPP	Marital status for this month
SPOUSE(m)	CREATED	Spouse's entry address ID and person number for this month (unedited concatenation of 2 fields in the SIPP file)
PARENT(m)	CREATED	Parent's entry address ID and person number for this month (unedited concatenation of 2 fields in the SIPP file)
GRADE	CREATED	Highest completed grade
STATE(m)	SIPP	State of residence at time of interview (values spread across all reference months covered by the interview)
PP-INC(m)	SIPP	Total person's income for this month
PP-EARN(m)	SIPP	Total person's earnings for this month
ESR(m)	SIPP	Employment status recode for this month

TABLE B.5 *(continued)*

Name	Source	Description
MTHJBWKS(m)	SIPP	Number of weeks with a job or business for this month
MTHWOPWK(m)	SIPP	Number of weeks without pay at a job or business for this month
MTHWKSLK(m)	SIPP	Number of weeks looking for work or on layoff for this month
USUALHRS	SIPP	Number of hours the person usually worked per week
CARECOV(m)	SIPP	Covered by Medicare for this month
CAIDCOV(m)	SIPP	Covered by Medicaid for this month
WICCOV(m)	SIPP	Covered by WIC for this month
AFDCCOV(m)	SIPP	Covered by AFDC for this month
FOODCOV(m)	SIPP	Covered by the FSP for this month
GACOV(m)	SIPP	Covered by general assistance for this month
OWELCOV(m)	SIPP	Covered by other welfare assistance or foster care for this month
FAMNO(m)	CREATED	Family number that uniquely identifies a family for this month
FAMNO2(m)	CREATED	Family number that combines subfamilies with the primary family for this month
V-HSIZE(m)	SIPP	Household size for this month
V-FSIZE(m)	SIPP	Family size for this month (primary and subfamilies combined)
V-FINC(m)	SIPP	Family income for this month (primary and subfamilies combined)
V-NELDER(m)	CREATED	Number of elderly (age 65 and over) in the family for this month
F-FSIZE(m)	CREATED	Family size for this month which fixes the family's composition in March but allows the family size to change with the arrival of the infant and primary and subfamilies are combined)
NKID0-MAR	CREATED	Number of infants in the family as of March
NKID1T4-MAR	CREATED	Number of preschool children (age 1 to 4) in March
NKID-MAR	CREATED	Number of children (age 0 to 17) in March
NADULT-MAR	CREATED	Number of adults (age 18 and over) in March

TABLE B.5 *(continued)*

Name	Source	Description
F-FINC(m)	CREATED	Family income this month (using the family's composition in March and primary and subfamilies are combined)
V-POV(m)	CREATED	Census-OMB Family poverty threshold for this month (primary and subfamilies combined using current family composition)
F-POV(m)	CREATED	Census-OMB Family poverty threshold for this month (using the family's composition in March and primary and subfamilies are combined)
V-POVGD(m)	CREATED	DHHS Poverty Guideline for this month (primary and related subfamilies combined using current family composition)

Creation of the Second (Chapter IV) Analysis Database

The second file we created was designed for the analysis of income dynamics surrounding a birth and the analysis of the participation patterns of pregnant women in WIC and other programs. The file contains one record for each pregnancy (and associated postpartum period) we could identify in the SIPP. Pregnancies were identified indirectly, by identifying the mothers of children who were under 1 year of age at any time during the panel. For each pregnancy (and postpartum period), we collected as much information as we could about the woman for the year before and after the child's birth. We recognized, however, that these women may not have been in the SIPP sample for the whole panel (some may have entered the sample after the beginning of the panel, while others may have left the sample before the end of the panel). Even if they were observed for the full panel, the panel may not contain the full 24-month period of interest. Since the file contains one record for each *pregnancy*, women who had more than one pregnancy (or postpartum period) during the panel contribute one record for each episode.[6] Pregnancies that resulted in multiple births (for example, twins or triplets) are counted only once.

a. Why No Weights Were Used for This File

Constructing sampling weights for this sample is not a simple matter. If the population of interest was clearly defined, if there was no sample attrition, and if data were available for all women for the full 24-month period surrounding the birth of their child, the correct weights would be the inverse of the selection probabilities for the women in the sample. However, the population is not clearly defined, there is sample attrition, and not all women are observed for the full 24-month period of interest.

One option would be to limit the sample to those women with complete 24-month records. Because each SIPP panel lasts for only 32 months, this would limit the sample to women who give birth during a single 9-month window in each panel (interview months 12 through 20) and who have at least 24 contiguous months of data centered on the month in which they gave birth.

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[6]When the two births were apparently less than 9 months apart (but not in the same month), only the first birth was used. About 12 percent of women have more than one record. Chapter IV and Appendix H consider the sensitivity of this study's results to inclusion of multiple pregnancies for some women.

This would decrease the sample size by 84 percent.[7] Furthermore, restricting the analysis to women with complete data could introduce biases into the analysis, since those with incomplete data may be systematically different from those with complete data. This option was rejected for both of these reasons.

Instead, the analyses based on this file presented in Chapters IV and V use data on every woman observed for the specific period of interest (usually a 3-month term). For example, measures of income during the first 3 months of pregnancy are based on all women in the file observed for *that* period and exclude all women not observed for that period. Similarly, measures of income for the 3 months following the birth event are based on all women observed for *that* period. While the two sets of women in this example contain many of the same individuals, they are different samples.

This approach minimizes (but does not eliminate) the effects of attrition bias and maximizes the effective sample size for each estimate, but it introduces several complications. First, because estimates for different periods are based on different samples of women, comparisons of these estimates should account for possible differences in the composition of the samples. Second, the computation of weights becomes burdensome. In a weighted analysis, each subsample would require its own weight. For the analyses presented in Chapters IV and V, which are based on up to 8 quarters of data, there could be up to 255 different weight variables to compute.[8]

Instead, this report presents unweighted tabulations, for two reasons. First, different weighting schemes in the SIPP (panel or calendar year weights) tend to yield similar results because all of the weights are very highly correlated. Second, along major dimensions of concern (such as age, race, gender, family type, and income), weighted and unweighted distributions of persons in SIPP are generally quite similar, because the SIPP sample is not usually stratified

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[7]The file has a total of 5,276 observations. Of these, 867 (16 percent) have data for all 24 months.

[8]This is the total number of combinations of eight quarters of data taken one at a time, two at a time, three at a time . . . up to eight at a time. Some combinations probably would not arise in practice. Other combinations would yield weights sufficiently similar that a single weight could be used for multiple combinations of subsamples. Even with these qualifications, however, the number that would arise could be quite large.

along these dimensions (although some oversampling did occur in the 1990 panel, as noted in Chapter II). On the basis of these findings, it seemed likely that the choice of weighting scheme (including the choice of no weights at all) would have little impact on the analysis. Thus, unweighted results are presented to make use of the maximum number of available observations.

To confirm that unweighted results would be similar to weighted results, some of the initial analyses were also performed using the full-panel weights that the Census Bureau assigned. These weights are assigned to those persons with no missing interviews for the duration of the SIPP panel. They account for different initial sampling probabilities and incorporate the largest nonresponse correction of the three weights provided by the Census Bureau. The weighted results for the subsample with full-panel weights were very similar to the unweighted results.

b. Detailed Description of File Creation

We created the data file for the analyses presented in Chapter IV from the 1990 and 1991 SIPP panels in four steps, as follows:

1. ***Locate Mothers of Children Younger than Age 1.*** Since the SIPP does not ask women whether they are pregnant, the only way to identify pregnancies is indirectly, by observing the birth of a child. We began by locating all infants (children under 1 year old) in the SIPP panel. We identified an infant's mother using the parent identification variables on his or her record. When the parent identification variables pointed to a father, we used the spouse identification variables on the father's record to find the mother (if present). If there was no female parent or spouse of parent, the infant was living in a family which did not include its mother, and the case was dropped from our analysis.[9]

2. ***Determine the Birth Month of the Infant.*** Before we could extract monthly data about the mother, we needed to identify the birth month of the infant. To do this, we relied on the child's birth date as recorded in the SIPP when that was available. If the infant's birth month was unknown, and the infant was not observed reaching its first birthday during the panel (from which we could infer a birth date), we assumed that the birth month was the first

[9]See footnote 4.

month the infant appeared in the sample (provided that it was not also the first reference month for the panel). When the birth date did not coincide with the infant's first appearance in the SIPP, we assumed that the recorded birth date was correct and built the record for the mother's pregnancy around that date.[10] The family size measure was adjusted if necessary to be consistent with the infant's birth date. In the very few cases when the infant's birth month remained undetermined, the case was dropped from the analysis file.

3. ***Determine the Beginning and End Months for the Mother.*** The child's birth month was stored in slot 12 of the mother's record. To fill in the rest of the mother's information, we identified her beginning and end months. The beginning month was either the birth month minus 11 months or the first month of available data (if she wasn't in the panel for all 11 months prior to the birth). For example, the mother may have entered the SIPP panel in March and had a baby in July. In this case, July would be month 12 and the beginning month (March) would be slot 8. The first seven slots of monthly data would have missing data. Similarly, the mother's end month was either the birth month plus 12 months or the last month of available data (if she wasn't in the panel for all 12 months after the birth).

4. ***Create Analysis Variables.*** Next, we generated the variables for the period from the beginning month to the end month. This process included extracting variables directly from the SIPP and creating additional variables needed for our analyses. Variables measuring attributes of the household and family of which the mother was a part were constructed, taking full account of any month-to-month changes in composition observed in the data.

The final analysis file used in Chapter IV included the variables listed in Table B.6.

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[10] In almost all cases where the two indicators did not coincide (95 percent), the disparity was 4 months or less. In 78 percent of cases, the disparity was only 1 month. We therefore believe these disparities to be attributable to the same kind of "seam" effect as observed in other SIPP analyses.

TABLE B.6

SELECTED VARIABLES FROM THE SECOND ANALYSIS DATABASE

Name	Source	Description
PANEL	CREATED	Panel year
SUSEQNUM	SIPP	Sequence number of person
ROT	SIPP	Rotation group
SU-ID	SIPP	Sampling unit identifier
PP-ENTRY	SIPP	Address ID when the person entered the SIPP universe
PP-PNUM	SIPP	Person number
HH-ADDID(m)	SIPP	Address ID for this month
PP-MIS(m)	SIPP	Person's interview status for this month
PNLWGT	SIPP	Person's panel weight
FNLWGT-FY	SIPP	Person's calendar year weight for the first calendar year of the panel
FNLWGT-SY	SIPP	Person's calendar year weight for the second calendar year of the panel
SEX	SIPP	Sex
RACE	SIPP	Race
ETHNICTY	SIPP	Ethnicity
RRP(m)	SIPP	Relationship to reference person for this month
AGE(m)	SIPP	Age for this month
MS(m)	SIPP	Marital status for this month
FAMREL(m)	SIPP	Family relationship code for sub and secondary families for this month
SPOUSE(m)	CREATED	Spouse's entry address ID and person number for this month (unedited concatenation of 2 fields in the SIPP file)
PARENT(m)	CREATED	Parent's entry address ID and person number for this month (unedited concatenation of 2 fields in the SIPP file)
GRADE	CREATED	Highest completed grade
STATE	SIPP	State of residence at time of interview (values spread across all reference months covered by the interview)
PP-INC(m)	SIPP	Total person's income for this month

TABLE B.6 *(continued)*

Name	Source	Description
PP-EARN(m)	SIPP	Total person's earnings for this month
ESR(m)	SIPP	Employment status recode for this month
WKSPERMN(m)	SIPP	Number of weeks in this month
MTHJBWKS(m)	SIPP	Number of weeks with a job or business for this month
MTHWOPWK(m)	SIPP	Number of weeks without pay at a job or business for this month
MTHWKSLK(m)	SIPP	Number of weeks looking for work or on layoff for this month
USUALHRS(m)	SIPP	Number of hours the person usually worked per week
CARECOV(m)	SIPP	Covered by Medicare for this month
CAIDCOV(m)	SIPP	Covered by Medicaid for this month
WICCOV(m)	SIPP	Covered by WIC for this month
AFDCCOV(m)	SIPP	Covered by AFDC for this month
FOODCOV(m)	SIPP	Covered by the FSP for this month
GACOV(m)	SIPP	Covered by general assistance for this month
OWELCOV(m)	SIPP	Covered by other welfare assistance or foster care for this month
HEALTH-INS(m)	CREATED	Covered by health insurance
FAMNO(m)	CREATED	Family number that uniquely identifies a family for this month
FAMNO2(m)	CREATED	Family number that combines subfamilies with the primary family for this month
HSIZE(m)	SIPP	Household size for this month
FSIZE(m)	SIPP	Family size for this month (primary and subfamilies combined)
FSIZE2(m)	CREATED	Family size, which includes the fetus, for this month (primary and subfamilies combined)
FINC(m)	SIPP	Family income for this month (primary and subfamilies combined)
FEARN(m)	SIPP	Family earnings for this month (primary and subfamilies combined)

TABLE B.6 *(continued)*

Name	Source	Description
FSSEC(m)	SIPP	Family social security income for this month (primary and subfamilies combined)
FRRET(m)	SIPP	Family railroad retirement income for this month (primary and subfamilies combined)
FSSI(m)	SIPP	Family SSI for this month (primary and subfamilies combined)
FUNMC(m)	SIPP	Family unemployment compensation for this month (primary and subfamilies combined)
FVETB(m)	SIPP	Family veteran's benefits for this month (primary and subfamilies combined)
FSICK(m)	CREATED	Family income for sickness benefits for this month (primary and subfamilies combined)
FAFDC(m)	CREATED	Family AFDC for this month (primary and subfamilies combined)
FGA(m)	CREATED	Family general assistance for this month (primary and subfamilies combined)
FOWEL(m)	CREATED	Family other welfare income or foster child care payments for this month (primary and subfamilies combined)
FWIC(m)	CREATED	Family WIC benefits for this month (primary and subfamilies combined)
FSBEN(m)	CREATED	Family food stamp benefits for this month (primary and subfamilies combined)
FCSP(m)	CREATED	Family child support income for this month (primary and subfamilies combined)
FALM(m)	CREATED	Family alimony income for this month (primary and subfamilies combined)
TWO-P(m)	CREATED	Both parents are present in this family for this month (primary and subfamilies combined)
NKID(m)	CREATED	Number of children (age 0 to 17) in this family for this month (primary and subfamilies combined)
NKID0(m)	CREATED	Number of infants in this family for this month (primary and subfamilies combined)
NKID1T4(m)	CREATED	Number of preschool children (age 1 to 4) in this family for this month (primary and subfamilies combined)

TABLE B.6 *(continued)*

Name	Source	Description
NADULT(m)	CREATED	Number of adults (age 18 and over) in this family for this month (primary and subfamilies combined)
NELDER(m)	CREATED	Number of elderly (age 65 and over) in this family for this month (primary and subfamilies combined)
WIC-INF(m)	CREATED	Infant in this family is covered by WIC for this month (primary and subfamilies combined)
WIC-OTR(m)	CREATED	Someone in this family, other than the mother and infant, is covered by WIC for this month (primary and subfamilies combined)
POV(m)	CREATED	Census-OMB Family poverty threshold for this month (primary and subfamilies combined)
POV2(m)	CREATED	Census-OMB Family poverty threshold, which includes the fetus in the family's size, for this month (primary and subfamilies combined)
POVGD(m)	CREATED	DHHS Family poverty guideline for this month (primary and subfamilies combined)
POVGD2(m)	CREATED	DHHS Family poverty guideline, which includes the fetus in the family's size, for this month (primary and subfamilies combined)
NUM-IN-SAM	CREATED	Number of times the woman is in the sample

APPENDIX C

ALTERNATIVE ESTIMATES OF WIC INCOME ELIGIBILITY: DETAILED TABLES

TABLE C.1

PERCENT OF INFANTS INCOME ELIGIBLE FOR WIC, BY YEAR

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
March CPS Annual Income Estimate	41.4			43.9			42.6		
SIPP Estimates									
Emulating March CPS Annual Income Methods	41.9	2.6	638	41.4	2.0	1,000	42.0	3.1	357
Monthly Estimates									
January	41.4	1.9	856	41.8	1.7	1,134	43.1	2.7	375
February	42.3	2.0	766	45.6	1.7	1,100	47.3	2.6	395
March	39.8	2.1	677	43.5	1.8	1,080	46.0	2.6	407
April	42.1	2.2	637	44.6	1.8	1,058	42.8	2.6	409
May	41.8	2.4	626	41.5	1.7	1,048	44.6	2.6	412
June	41.5	2.4	605	45.9	1.7	1,039	45.1	2.6	420
July	47.6	2.5	588	43.2	1.7	1,025	41.8	2.6	416
August	43.4	2.5	577	41.8	1.7	1,027	48.9	2.6	417
September	46.8	2.4	591	43.4	1.7	1,003	42.8	2.6	408
October	46.4	2.4	589	41.8	1.7	994	41.1	2.6	403
November	46.3	2.4	588	43.6	1.7	1,004	45.5	2.6	408
December	48.3	2.4	576	45.6	1.8	992	40.9	2.6	402
Average of Monthly Estimates	44.0	1.6		43.5	1.2		44.2	1.9	

TABLE C.1 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	45.5	1.6	1,350	44.0	1.2	2,055	45.6	1.9	764
2.25	48.9	1.6	1,350	47.2	1.2	2,055	48.2	1.9	764
2.50	50.5	1.6	1,350	50.2	1.2	2,055	50.5	1.9	764
2.75	51.4	1.6	1,350	51.3	1.2	2,055	51.4	1.9	764
3.00	51.9	1.6	1,350	52.1	1.2	2,055	52.4	1.9	764
Difference From SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	-0.5	3.2		0.4	2.6		1.2	4.1	
February	0.5	3.3		4.2	2.6		5.4	4.1	
March	-2.1	3.3		2.1	2.6		4.1	4.0	
April	0.2	3.3		3.2	2.6		0.9	4.0	
May	-0.1	3.1		0.1	2.4		2.6	3.8	
June	-0.4	2.9		4.5	2.4		3.1	3.6	
July	5.7	2.9		1.8	2.2		-0.2	3.4	
August	1.5	2.5		0.4	2.0		6.9	3.1	
September	4.9	2.5		2.0	1.9		0.8	3.0	
October	4.5	2.2		0.4	1.7		-0.9	2.7	
November	4.5	2.1		2.2	1.6		3.5	2.6	
December	6.4	2.2		4.2	1.3		-1.1	2.4	
Average of Monthly Estimates	2.1	2.3		2.1	1.8		2.2	3.0	

TABLE C.1 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	3.6	2.3		2.7	1.6		3.6	2.6	
2.25	7.0	2.3		5.8	1.7		6.2	2.7	
2.50	8.6	2.4		8.8	1.7		8.5	2.7	
2.75	9.5	2.4		9.9	1.7		9.4	2.7	
3.00	10.0	2.4		10.7	1.7		10.5	2.8	
Proportion of SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	98.8	7.6		101.0	6.3		102.7	9.9	
February	101.1	7.8		110.2	6.6		112.7	10.4	
March	94.9	7.7		105.2	6.5		109.7	10.2	
April	100.5	8.0		107.7	6.5		102.1	9.6	
May	99.9	7.3		100.2	5.9		106.2	9.4	
June	99.0	6.8		110.9	6.1		107.4	9.1	
July	113.6	7.4		104.4	5.5		99.7	8.1	
August	103.6	6.0		101.0	4.9		116.5	8.2	
September	111.6	6.3		104.8	4.6		101.9	7.2	
October	110.8	5.6		101.0	4.1		97.9	6.5	
November	110.6	5.4		105.2	3.9		108.3	6.6	
December	115.2	5.9		110.1	3.4		97.4	5.6	
Average of Monthly Estimates	105.0	5.7		105.1	4.6		105.2	7.4	

TABLE C.1 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	108.6	5.9		106.4	4.2		108.6	6.8	
2.25	116.7	6.5		114.0	4.6		114.7	7.3	
2.50	120.6	6.7		121.2	4.9		120.2	7.8	
2.75	122.8	6.9		123.9	5.1		122.3	7.9	
3.00	123.8	7.0		125.9	5.2		124.9	8.1	

SOURCE: First analysis database developed from the 1990 and 1991 SIPP full-panel files. The files include data for each calendar year and the subsequent March for the subsample of children who were present in all 13 months and who had full data on income of the March family in the prior calendar year.

TABLE C.2

PERCENT OF YOUNG CHILDREN (AGE 1 - 4 YEARS) INCOME ELIGIBLE FOR WIC, BY YEAR

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
March CPS Annual Income Estimate	41.1			42.6			43.8		
SIPP Estimates									
Emulating March CPS Annual Income Methods	40.5	1.1	3,009	41.6	0.8	4,761	44.3	1.2	1,798
Monthly Estimates									
January	38.4	1.0	2,948	40.3	0.8	4,715	40.3	1.2	1,864
February	41.0	1.0	2,987	43.0	0.8	4,706	45.9	1.2	1,841
March	37.3	1.0	3,028	41.0	0.8	4,716	44.5	1.2	1,835
April	39.2	1.0	3,049	41.8	0.8	4,721	40.4	1.2	1,837
May	35.8	1.0	3,043	37.4	0.8	4,728	41.6	1.2	1,830
June	37.4	1.0	3,069	42.1	0.8	4,749	43.4	1.2	1,809
July	42.4	1.0	3,086	43.0	0.8	4,767	41.1	1.2	1,821
August	37.3	1.0	3,095	41.6	0.8	4,772	45.9	1.2	1,823
September	41.6	1.0	3,082	44.9	0.8	4,791	43.0	1.2	1,823
October	40.2	1.0	3,081	41.6	0.8	4,784	44.2	1.2	1,822
November	40.2	1.0	3,086	42.6	0.8	4,786	46.7	1.2	1,816
December	43.7	1.0	3,089	45.2	0.8	4,799	43.7	1.2	1,803
Average of Monthly Estimates	39.5	0.9		42.0	0.7		43.4	1.0	

TABLE C.2 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	41.2	0.9	3,754	43.4	0.7	5,833	46.1	1.1	2,240
2.25	45.4	0.9	3,754	47.8	0.7	5,833	50.3	1.1	2,240
2.50	48.1	1.0	3,754	50.3	0.7	5,833	52.4	1.1	2,240
2.75	49.7	1.0	3,754	51.9	0.7	5,833	53.7	1.1	2,240
3.00	51.1	1.0	3,754	53.0	0.7	5,833	54.8	1.1	2,240
Difference From SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	-2.1	1.0		-1.3	0.7		-4.0	1.2	
February	0.5	0.9		1.4	0.7		1.6	1.2	
March	-3.2	0.9		-0.6	0.7		0.1	1.2	
April	-1.3	0.9		0.2	0.7		-3.9	1.1	
May	-4.7	0.9		-4.3	0.6		-2.8	1.1	
June	-3.1	0.9		0.4	0.6		-1.0	1.1	
July	1.9	0.8		1.3	0.7		-3.2	1.0	
August	-3.2	0.8		-0.0	0.6		1.5	1.0	
September	1.1	0.7		3.2	0.6		-1.4	0.9	
October	-0.3	0.7		-0.0	0.6		-0.2	0.9	
November	-0.3	0.7		1.0	0.6		2.3	0.9	
December	3.2	0.7		3.5	0.6		-0.7	0.9	
Average of Monthly Estimates	-0.9	0.6		0.4	0.5		-1.0	0.8	

TABLE C.2 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	0.8	0.6		1.7	0.5		1.8	0.9	
2.25	4.9	0.7		6.2	0.6		6.0	0.9	
2.50	7.7	0.8		8.7	0.6		8.1	0.9	
2.75	9.2	0.8		10.2	0.6		9.4	1.0	
3.00	10.6	0.8		11.3	0.7		10.5	1.0	
Proportion of SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	94.7	2.4		96.9	1.8		90.9	2.6	
February	101.3	2.3		103.2	1.7		103.6	2.7	
March	92.2	2.2		98.5	1.7		100.2	2.6	
April	96.9	2.1		100.5	1.6		91.1	2.4	
May	88.4	2.1		89.8	1.5		93.8	2.4	
June	92.4	2.1		101.1	1.5		97.8	2.4	
July	104.7	2.1		103.2	1.6		92.8	2.3	
August	92.2	1.9		100.0	1.5		103.4	2.3	
September	102.8	1.8		107.7	1.5		96.9	2.0	
October	99.3	1.8		99.9	1.4		99.6	2.0	
November	99.4	1.7		102.3	1.4		105.2	2.0	
December	107.9	1.8		108.5	1.5		98.5	1.9	
Average of Monthly Estimates	97.7	1.5		101.0	1.2		97.8	1.8	

TABLE C.2 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	101.9	1.6		104.1	1.2		104.0	2.0	
2.25	112.1	1.9		114.8	1.5		113.4	2.2	
2.50	118.9	2.1		120.8	1.7		118.2	2.4	
2.75	122.8	2.3		124.6	1.8		121.2	2.5	
3.00	126.2	2.4		127.2	1.9		123.6	2.6	

SOURCE: First analysis database developed from the 1990 and 1991 SIPP full-panel files. The files include data for each calendar year and the subsequent March for the subsample of children who were present in all 13 months and who had full data on income of the March family in the prior calendar year.

TABLE C.3

PERCENT OF INFANTS AND YOUNG CHILDREN (AGE 0 - 4 YEARS) INCOME ELIGIBLE FOR WIC, BY YEAR

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
March CPS Annual Income Estimate	41.1			42.8			43.6		
SIPP Estimates									
Emulating March CPS Annual Income Methods	40.7	1.0	3,647	41.6	0.8	5,761	44.0	1.2	2,155
Monthly Estimates									
January	39.0	0.9	3,804	40.6	0.7	5,849	40.8	1.1	2,239
February	41.3	0.9	3,753	43.5	0.7	5,806	46.2	1.1	2,236
March	37.7	0.9	3,705	41.5	0.7	5,796	44.7	1.1	2,242
April	39.7	0.9	3,686	42.4	0.7	5,779	40.9	1.1	2,246
May	36.8	0.9	3,669	38.1	0.7	5,776	42.2	1.1	2,242
June	38.1	0.9	3,674	42.8	0.7	5,788	43.7	1.1	2,229
July	43.2	1.0	3,674	43.0	0.7	5,792	41.3	1.1	2,237
August	38.3	1.0	3,672	41.7	0.7	5,799	46.4	1.1	2,240
September	42.5	1.0	3,673	44.6	0.7	5,794	42.9	1.1	2,231
October	41.3	1.0	3,670	41.7	0.7	5,778	43.6	1.1	2,225
November	41.3	1.0	3,674	42.8	0.7	5,790	46.4	1.1	2,224
December	44.4	1.0	3,665	45.2	0.7	5,791	43.2	1.1	2,205
Average of Monthly Estimates	40.3	0.8		42.3	0.6		43.5	0.9	

TABLE C.3 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	42.7	0.9	4,331	44.0	0.7	6,826	46.2	1.0	2,642
2.25	46.9	0.9	4,331	48.4	0.7	6,826	50.4	1.0	2,642
2.50	49.7	0.9	4,331	51.2	0.7	6,826	52.8	1.0	2,642
2.75	51.3	0.9	4,331	52.8	0.7	6,826	54.1	1.0	2,642
3.00	52.5	0.9	4,331	53.9	0.7	6,826	55.3	1.0	2,642
Difference From SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	-1.7	0.8		-1.0	0.6		-3.2	1.0	
February	0.6	0.8		1.9	0.6		2.2	1.0	
March	-3.0	0.8		-0.1	0.6		0.7	1.0	
April	-1.0	0.8		0.7	0.6		-3.2	0.9	
May	-3.9	0.8		-3.5	0.5		-1.9	0.9	
June	-2.6	0.8		1.2	0.6		-0.3	0.9	
July	2.5	0.7		1.4	0.6		-2.8	0.9	
August	-2.4	0.7		0.1	0.5		2.4	0.8	
September	1.8	0.7		3.0	0.5		-1.1	0.8	
October	0.6	0.6		0.0	0.5		-0.4	0.7	
November	0.6	0.6		1.2	0.5		2.4	0.7	
December	3.7	0.7		3.6	0.5		-0.9	0.7	
Average of Monthly Estimates	-0.4	0.5		0.7	0.4		-0.5	0.7	

TABLE C.3 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	2.0	0.6		2.4	0.4		2.2	0.7	
2.25	6.2	0.7		6.8	0.5		6.4	0.8	
2.50	9.0	0.7		9.6	0.5		8.8	0.8	
2.75	10.6	0.7		11.2	0.6		10.1	0.8	
3.00	11.8	0.7		12.3	0.6		11.2	0.9	•
Proportion of SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	95.9	2.0		97.6	1.5		92.7	2.3	
February	101.4	2.0		104.5	1.5		104.9	2.3	
March	92.7	1.9		99.8	1.4		101.7	2.2	
April	97.6	1.9		101.8	1.4		92.8	2.0	
May	90.4	1.9		91.6	1.3		95.8	2.0	
June	93.5	1.8		102.8	1.3		99.3	2.0	
July	106.2	1.9		103.4	1.4		93.8	1.9	
August	94.0	1.7		100.1	1.3		105.5	1.9	
September	104.3	1.7		107.2	1.3		97.6	1.7	
October	101.4	1.6		100.1	1.2		99.1	1.6	
November	101.4	1.6		102.8	1.2		105.5	1.7	
December	109.2	1.7		108.7	1.2		98.0	1.6	
Average of Monthly Estimates	99.0	1.3		101.7	1.0		98.9	1.5	

TABLE C.3 (continued)

	1990			1991			1992		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	104.9	1.5		105.7	1.1		105.0	1.7	
2.25	115.3	1.8		116.3	1.4		114.5	2.0	
2.50	122.0	2.0		123.0	1.6		120.0	2.2	
2.75	125.9	2.1		126.8	1.6		122.9	2.3	
3.00	129.0	2.2		129.6	1.7		125.5	2.4	

SOURCE: First analysis database developed from the 1990 and 1991 SIPP full-panel files. The files include data for each calendar year and the subsequent March for the subsample of children who were present in all 13 months and who had full data on income of the March family in the prior calendar year.

TABLE C.4

PERCENT OF INFANTS AND YOUNG CHILDREN(AGE 0 - 4 YEARS) INCOME ELIGIBLE FOR WIC
(Pooled Data: 1990 - 1992)

	Infants(Less Than 1 Year Old)			Children (Age 1 - 4)			All Children (Age 0 - 4 Years)		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
SIPP Estimates									
Emulating March CPS Annual Income Methods	41.7	1.4	1,995	41.8	0.6	9,568	41.8	0.5	11,563
Monthly Estimates									
January	41.9	1.2	2,365	39.7	0.6	9,527	40.2	0.5	11,892
February	44.9	1.2	2,261	43.0	0.6	9,534	43.3	0.5	11,795
March	43.0	1.2	2,164	40.6	0.6	9,579	41.0	0.5	11,743
April	43.5	1.2	2,104	40.8	0.6	9,607	41.3	0.5	11,711
May	42.2	1.2	2,086	37.7	0.6	9,601	38.5	0.5	11,687
June	44.5	1.2	2,064	40.9	0.6	9,627	41.5	0.5	11,691
July	44.1	1.2	2,029	42.4	0.6	9,674	42.7	0.5	11,703
August	43.8	1.2	2,021	41.1	0.6	9,690	41.6	0.5	11,711
September	44.2	1.2	2,002	43.5	0.6	9,696	43.6	0.5	11,698
October	43.0	1.2	1,986	41.7	0.6	9,687	41.9	0.5	11,673
November	44.8	1.2	2,000	42.7	0.6	9,688	43.1	0.5	11,688
December	45.4	1.3	1,970	44.4	0.6	9,691	44.6	0.5	11,661
Average of Monthly Estimates	43.8	0.9		41.5	0.5		42.0	0.4	

TABLE C.4 (continued)

	Infants(Less Than 1 Year Old)			Children (Age 1 - 4)			All Children (Age 0 - 4 Years)		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	44.8	0.9	4,169	43.3	0.5	11,827	44.0	0.5	13,799
2.25	47.9	0.9	4,169	47.6	0.5	11,827	48.4	0.5	13,799
2.50	50.3	0.9	4,169	50.1	0.5	11,827	51.1	0.5	13,799
2.75	51.3	0.9	4,169	51.6	0.5	11,827	52.6	0.5	13,799
3.00	52.1	0.9	4,169	52.8	0.5	11,827	53.8	0.5	13,799
Difference From SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	0.3	1.8		-2.1	0.5		-1.6	0.5	
February	3.3	1.8		1.2	0.5		1.5	0.4	
March	1.3	1.8		-1.3	0.5		-0.8	0.4	
April	1.9	1.8		-1.1	0.5		-0.6	0.4	
May	0.6	1.7		-4.1	0.5		-3.3	0.4	
June	2.9	1.6		-0.9	0.5		-0.3	0.4	
July	2.5	1.6		0.6	0.5		0.9	0.4	
August	2.1	1.4		-0.7	0.4		-0.2	0.4	
September	2.6	1.3		1.7	0.4		1.8	0.4	
October	1.3	1.2		-0.1	0.4		0.1	0.3	
November	3.1	1.1		0.9	0.4		1.2	0.4	
December	3.7	1.0		2.6	0.4		2.8	0.3	
Average of Monthly Estimates	2.1	1.3		-0.3	0.3		0.1	0.3	

TABLE C.4 (continued)

	Infants(Less Than 1 Year Old)			Children (Age 1 - 4)			All Children (Age 0 - 4 Years)		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	3.1	1.2		1.4	0.4		2.2	0.3	
2.25	6.3	1.2		5.7	0.4		6.6	0.4	
2.50	8.7	1.2		8.3	0.4		9.3	0.4	
2.75	9.7	1.2		9.8	0.4		10.8	0.4	
3.00	10.4	1.3		10.9	0.5		12.0	0.4	
Proportion of SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	100.6	4.3		95.0	1.2		96.1	1.1	
February	107.8	4.6		102.8	1.2		103.7	1.1	
March	103.1	4.5		97.0	1.2		98.1	1.0	
April	104.5	4.5		97.4	1.1		98.7	1.0	
May	101.4	4.1		90.2	1.1		92.2	0.9	
June	106.9	4.1		97.8	1.1		99.4	1.0	
July	105.9	3.9		101.5	1.1		102.2	1.0	
August	105.1	3.5		98.3	1.0		99.5	0.9	
September	106.1	3.3		104.0	1.0		104.3	0.9	
October	103.2	2.9		99.7	1.0		100.3	0.8	
November	107.4	2.9		102.0	1.0		103.0	0.8	
December	109.0	2.7		106.2	1.0		106.7	0.9	
Average of Monthly Estimates	105.1	3.2		99.3	0.8		100.3	0.7	

TABLE C.4 (continued)

	Infants(Less Than 1 Year Old)			Children (Age 1 - 4)			All Children (Age 0 - 4 Years)		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	107.5	3.1		103.4	0.9		105.3	0.8	
2.25	115.0	3.3		113.7	1.1		115.7	1.0	
2.50	120.8	3.6		119.7	1.2		122.1	1.1	
2.75	123.3	3.6		123.3	1.2		125.8	1.1	
3.00	125.1	3.7		126.1	1.3		128.6	1.2	

SOURCE: First analysis database developed from the 1990 and 1991 SIPP full-panel files. The files include data for each calendar year and the subsequent March for the subsample of children who were present in all 13 months and who had full data on income of the March family in the prior calendar year.

APPENDIX D

STANDARD ERROR ESTIMATION

Except where noted, all standard errors reported in Appendix C and in Tables III.1-III.4 were computed using a jackknife procedure. From Skinner, Holt, and Smith (1989, p. 53), if $\hat{\phi}$ is the parameter estimate, then the jackknife variance estimator is given by

$$v(\hat{\phi}) = \sum_{h=1}^{H} \frac{(l_h - 1)}{l_h} \sum_{d=1}^{l_h} (\hat{\phi}^{hd} - \bar{\phi}^{h})^2,$$

where there are l_h primary sampling units (PSUs) in each stratum h, $\hat{\phi}^{hd}$ is the estimator of ϕ based on the sample with the dth PSU from stratum h omitted, and $\bar{\phi}^{h} = \hat{\phi}^{hd} / l$. The standard error is simply the square root of the variance.

The jackknife estimator we used treats each observation as its own PSU and ignores the stratification of the sample. The jackknife variance estimator implemented here is given by

$$v(\hat{\phi}) = \sum_{d=1}^{N} (\hat{\phi}^{d} - \bar{\phi})^2,$$

where there are N observations in the sample, $\hat{\phi}^{d}$ is the estimator of ϕ based on the sample with the dth observation omitted, and $\bar{\phi}$ is the full sample estimator of ϕ. The standard error is simply the square root of the variance.

This procedure was used to compute standard errors for our estimates of the percentage of infants and children income eligible for WIC based on several alternative definitions of income eligibility. The procedure was also used to compute standard errors of the differences between alternative estimates and for the ratios between estimates presented in Tables III.1 to III.4 (except as noted below) and in Appendix C. These standard errors take full account of the correlations between the alternative estimates presented. Alternative estimates are correlated because they are based on the same sample of persons (to varying degrees).

The jackknife procedure used here does not, however, take full account of the loss of precision due to correlations between the observations in the sample.

These correlations result from the presence of siblings and from the clustered sampling (the initial sample selection of neighboring addresses) used in the SIPP. In tables that pool 3 calendar years of data, correlations between observations also result from the occurrence of the same child in up to 2 different calendar years. While we have ignored some gains in precision from the stratification of the sample, those gains are likely to be small relative to losses from cross-observation correlations. Reported standard errors, therefore, seemed likely to understate true standard errors.

After preparing the early drafts of this report, project researchers obtained access to the WESVAR software package, which can be used to estimate standard errors that take full account of stratification and correlations among observations, using balanced repeated replication methods. WESVAR was used to obtain balanced repeated replication jackknife estimates of standard errors for selected estimates, and they were very close to the standard errors generated by the jackknife procedure described above.

The standard-error estimates in Table III.2 were generated using WESVAR. The estimates in other Chapter III tables, and in Tables C.1 to C.4, were not revised, because the WESVAR estimates were very close to the original estimates.

APPENDIX E

ESTIMATES OF WIC INCOME ELIGIBILITY USING ONLY RECORDS FOR CHILDREN WITH 12 MONTHS OF DATA

Using the procedures described in Chapter III to identify children with one or more months of WIC income eligibility presents one important problem--a child born in July would only be observed for 6 months of the calendar year, while a child born in January would be observed for a full 12 months. Clearly, the longer the period of observation, the greater the chance of observing at least 1 month below the WIC income eligibility threshold. This problem is most acute for infants, over 90 percent of whom are observed for less than 12 months within a single calendar year. However, the problem also exists for children who have their first or fifth birthday during the calendar year, thereby aging into or out of the sample.

To assess the impact of this problem on the estimates, Table C.4 was re-estimated, restricting the sample to children observed for all 12 months of the calendar year. The results, presented in Table E.1, are consistent with those presented in Table C.4. Where differences do exist between the two sets of estimates, they are generally small and well within the range we would expect from sampling variability.

TABLE E.1

PERCENT OF INFANTS AND YOUNG CHILDREN (AGE 0 - 4 YEARS) INCOME ELIGIBLE FOR WIC
(Pooled Data: 1990 - 1991)

	Infants (Less Than 1 Year Old)			Children (Age 1 - 4)			All Children (Age 0 - 4 Years)		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
SIPP Estimates									
Emulating March CPS Annual Income Methods	41.7	1.4	1,995	41.8	0.6	9,568	41.8	0.5	11,563
Monthly Estimates									
January	37.9	4.0	190	39.9	0.6	7,389	40.4	0.6	9,745
February	42.2	4.0	190	43.1	0.7	7,389	43.4	0.6	9,745
March	41.5	4.0	190	40.9	0.6	7,389	41.1	0.6	9,745
April	40.7	4.0	190	40.8	0.6	7,389	41.2	0.6	9,745
May	35.2	4.0	190	37.8	0.6	7,389	38.2	0.6	9,745
June	37.3	4.0	190	41.1	0.6	7,389	41.2	0.6	9,745
July	41.9	4.0	190	42.7	0.7	7,389	42.7	0.6	9,745
August	39.9	4.0	190	41.3	0.6	7,389	41.4	0.6	9,745
September	42.0	4.0	190	43.6	0.7	7,389	43.6	0.6	9,745
October	38.5	4.0	190	41.7	0.6	7,389	41.6	0.6	9,745
November	39.0	4.0	190	42.7	0.7	7,389	42.5	0.6	9,745
December	39.8	4.0	190	44.4	0.7	7,389	44.3	0.6	9,745
Average of Monthly Estimates	39.6	3.6		41.7	0.6		41.8	0.5	

TABLE E.1 (continued)

	Infants (Less Than 1 Year Old)			Children (Age 1 - 4)			All Children (Age 0 - 4 Years)		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	42.9	4.0	190	43.8	0.7	7,389	43.8	0.6	9,745
2.25	46.0	4.0	190	48.8	0.7	7,389	48.6	0.6	9,745
2.50	49.1	4.0	190	51.4	0.7	7,389	51.5	0.6	9,745
2.75	50.9	4.0	190	53.2	0.7	7,389	53.2	0.6	9,745
3.00	52.5	4.0	190	54.6	0.7	7,389	54.6	0.6	9,745
Difference From SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	-3.8	4.2		-1.9	0.5		-1.4	0.4	
February	0.5	4.2		1.2	0.5		1.6	0.4	
March	-0.2	4.2		-1.0	0.5		-0.7	0.4	
April	-1.0	4.2		-1.0	0.5		-0.6	0.4	
May	-6.4	4.1		-4.1	0.5		-3.6	0.4	
June	-4.4	4.1		-0.7	0.5		-0.6	0.4	
July	0.2	4.2		0.8	0.5		0.9	0.4	
August	-1.8	4.2		-0.5	0.5		-0.4	0.4	
September	0.3	4.2		1.8	0.5		1.8	0.4	
October	-3.2	4.2		-0.1	0.5		-0.2	0.4	
November	-2.7	4.2		0.8	0.5		0.7	0.4	
December	-1.9	4.2		2.5	0.5		2.5	0.4	
Average of Monthly Estimates	-2.0	3.8		-0.2	0.4		-0.0	0.3	

TABLE E.1 (continued)

	Infants (Less Than 1 Year Old)			Children (Age 1 - 4)			All Children (Age 0 - 4 Years)		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	1.2	4.2		2.0	0.4		2.0	0.3	
2.25	4.4	4.2		6.9	0.5		6.8	0.4	
2.50	7.4	4.2		9.6	0.5		9.7	0.4	
2.75	9.2	4.2		11.4	0.5		11.4	0.4	
3.00	10.8	4.2		12.7	0.5		12.8	0.4	
Proportion of SIPP Estimate Emulating March CPS Annual Income Methods									
Monthly Estimates									
January	90.9	9.9		95.5	1.2		96.7	1.0	
February	101.3	10.0		103.0	1.2		103.9	1.0	
March	99.6	10.0		97.7	1.2		98.3	1.0	
April	97.7	10.0		97.7	1.2		98.6	1.0	
May	84.6	9.8		90.3	1.2		91.3	1.0	
June	89.4	9.9		98.3	1.2		98.6	1.0	
July	100.5	10.0		102.0	1.3		102.1	1.0	
August	95.8	10.0		98.8	1.2		99.1	1.0	
September	100.8	10.0		104.3	1.2		104.2	1.0	
October	92.4	9.9		99.7	1.2		99.4	1.0	
November	93.5	9.9		102.0	1.2		101.8	1.0	
December	95.5	10.0		106.1	1.3		105.9	1.0	
Average of Monthly Estimates	95.2	9.1		99.6	1.0		100.0	0.8	

TABLE E.1 (continued)

	Infants (Less Than 1 Year Old)			Children (Age 1 - 4)			All Children (Age 0 - 4 Years)		
	Percent	Standard Error	N	Percent	Standard Error	N	Percent	Standard Error	N
Income Eligible in 1+ Months with Annual Income-to-Poverty Ratio Less Than									
2.00	103.0	10.0		104.8	1.1		104.8	0.8	
2.25	110.5	10.1		116.6	1.2		116.3	1.0	
2.50	117.8	10.2		123.0	1.3		123.2	1.1	
2.75	122.1	10.2		127.2	1.4		127.3	1.2	
3.00	126.0	10.2		130.4	1.5		130.7	1.3	

SOURCE: First analysis database developed from the 1990 and 1991 SIPP full-panel files. The files include data for each calendar year and the subsequent March for the subsample of children who were present in all 13 months and who had full data on income of the March family in the prior calendar year.

APPENDIX F

CHARACTERISTICS OF INFANTS AND CHILDREN WITH DIFFERENT PATTERNS OF INCOME ELIGIBILITY FOR WIC

The analysis in Chapter III suggests that some infants and children ages 1 to 4 fall into four categories, which represent successively increasing levels of economic well-being:

1. Children whose mothers are CPS eligible and eligible in all months[1]
2. Children whose mothers are CPS eligible and eligible in some (but not all) months
3. Children whose mothers are not CPS eligible but are eligible in some (but not all) months
4. Children whose mothers are not CPS eligible and not eligible in any months

This appendix assesses the relative frequency with which children fall into these four eligibility groups (referred to here as Groups 1 to 4), and the characteristics of the children in each group and their families; it also examines how children who are reported WIC participants are distributed across these four groups.

Groups 2 and 3 are of particular interest because they suggest the limitations of measures of WIC eligibility based on either monthly or annual income. Together, these two groups make up more than 30 percent of all infants and children. Group 2 is comprised of children whose mothers CPS-type estimates would identify as eligible for WIC, but who have incomes above the eligibility threshold for at least 1 month during the year. It constitutes nearly 40 percent of all infants and children identified as income eligible for WIC using methods analogous to those used in eligibility estimates from the CPS. Because the recertification schedule for WIC is anywhere from 6 months to a year, neither these children nor their mothers necessarily lose their eligibility for WIC during those periods when their mother's family income rises above the eligibility threshold. Group 3 is comparable in size to Group 2 and is made up of children whose mothers a CPS-type methodology would identify as ineligible for WIC but who have incomes below the eligibility threshold for at least 1 month during the year. For this group of infants and children, WIC

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[1]CPS-eligible mothers are those who are income eligible for WIC on the basis of the SIPP annual income measure described in Chapter III, which mimics the procedures used in the CPS.

eligibility (and participation) for both the mothers and their children may be established during the periods of low income and extend to months when family income rises above the eligibility threshold. Data available in the CPS provide no direct way to identify infants, children, or mothers falling into Group 3.

The first section of this appendix describes the data file constructed for these analyses. Following sections describe, in turn, WIC income eligibility, family structure and changes in family composition, other demographic characteristics of the mothers, and patterns of employment and program participation among mothers of children in the four eligibility groups. The final section examines how WIC participants are allocated across the four categories.

File Construction

This analysis is based on a modified version of the first analysis database described in Appendix B. The modified file was constructed by linking the child's record with the mother's record wherever possible. The mother's record was then used the for the analyses, adding variables for the age and monthly program participation of the reference child.

Of 11,402 infants and children present in the combined 1990, 1991, and 1992 files from the first analysis database (children were identified in March of the subsequent year), mothers were identified for 11,127 (see Table F.1). In 158 cases, a father, but not a mother, could be identified; in 117 cases, neither parent could be identified.[2] The results that the following tables present are based on the sample of 11,127 infants and children for whom a mother was identified in the March following the reference year. For this analysis, infants and children are classified by the characteristics of their mothers, and the mother and child are assumed to live in the same family for the entire period of interest. Women who were mothers of more than one child under age 5 in the March following the reference year have their characteristics associated with each of their children.

Estimates presented here are an average of estimates from the 1990, 1991, and 1992 calendar years, with each year receiving approximately equal weight. Estimates were computed using the mother's calendar year weight. Since the weights of the children are derived from, and highly correlated with, those of their parents, similar results would most likely be obtained using the weights of the children.[3]

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[2]These may be infants and children living with a nonparent guardian or infants and children for whom the SIPP database contains no valid codes identifying a parent.

[3]Mothers with several children under age 5 are counted in this file once for each child, because current interest is in the patterns of WIC income eligibility of the children rather than the mothers.

TABLE F.1

NUMBER OF INFANTS AND CHILDREN UNDER AGE 5,
BY SIPP PANEL AND CALENDAR YEAR

SIPP Panel	Calendar Year	Number of Infants and Children: Total	Located Mother's Record	Located Only Father's Record	No Parent Record Located
1990	1990	3,591	3,496	49	46
1990	1991	3,354	3,269	48	37
1991	1991	2,330	2,275	31	24
1991	1992	2,127	2,087	30	10
Total		11,402	11,127	158	117

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

Income Eligibility

As reported in Chapter III, approximately 42 percent of infants and children between ages 1 and 4 are CPS eligible for WIC (eligible based on annual income in the past year). Table F.2 shows the distribution of infants and children across the four income eligibility groups. Although 42 percent of infants and children are identified as CPS eligible for WIC, nearly 40 percent of those (16.4 percent of all infants and children) have mothers who had family incomes above the WIC eligibility threshold for at least 1 month during the prior (reference) year. Conversely, while 58 percent of all infants and children are not CPS eligible for WIC, nearly 29 percent of them (16.7 percent of all infants and children) have mothers who had family incomes below the WIC eligibility threshold for at least 1 month during the prior (reference) year.

Mean and median income-to-poverty ratios (measured using methods that mimic the CPS) follow a strong and consistent pattern across these four groups for both infants and children (Table F.3). Infants and children in Group 1 have mothers with substantially lower annual incomes (adjusted for family size using the WIC program poverty guidelines) than those in Group 2, infants and children in Group 2 have mothers with substantially lower adjusted annual incomes than those in Group 3, and infants and children in Group 3 have mothers with substantially lower adjusted annual incomes than those in Group 4. The same underlying hierarchy is reflected in the monthly WIC income eligibility rates observed among the mothers of infants and children in each of the four groups. By definition, the mean number of months income eligible for WIC is highest for the mothers of infants and children in Group 1 (12) and lowest for those in Group 4 (0). As is consistent with the underlying hierarchy of economic well-being, the mothers of infants and children in Group 2 spend substantially more time during the year with family income below the WIC eligibility threshold (about 8 months, on average) than those in Group 3 (about 3 months, on average).

Also notable are the patterns of eligibility during the year among those in the middle two groups. Monthly eligibility rates for mothers of infants in Group 2 cover a wide range (from 43 to 78 percent). Furthermore, for this group, monthly income eligibility rates increase steadily over the year. This pattern is likely tied to the increase in family size (and concomitant rise in the WIC eligibility threshold) and drop in family income associated with the arrival of the new child. A similar, although less pronounced, pattern exists for mothers of children between ages 1 and 4, perhaps because some mothers also have infants. Monthly eligibility rates for mothers of children ages 1 to 4 in Group 2 range between 57 and 79 percent, with a less consistent rise during the year.

While monthly WIC income eligibility rates are lower among mothers of infants in Group 3 than in Group 2, increases in monthly WIC income eligibility rates during the year occur for both groups, because of the arrival of the infant. The monthly income eligibility rate increases from about 13 to 41 percent over the year among mothers of infants in Group 3. Among mothers of children between ages 1 and 4 in Group 3, there is no apparent

TABLE F.2

WIC INCOME ELIGIBILITY OF MOTHERS,
BY AGE OF CHILD

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
Mothers of All Children Under Age 5	100.0%	25.6%	16.4%	16.7%	41.3%
Mothers of Infants	100.0%	21.7%	19.3%	15.4%	43.6%
Mothers of Children Age 1 to 4	100.0%	26.5%	15.7%	17.0%	40.9%

SOURCE: Weighted estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

TABLE F.3

WIC INCOME ELIGIBILITY OF MOTHERS,
BY AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF ALL CHILDREN UNDER AGE 5	100.0%	100.0%	100.0%	100.0%	100.0%
Median Annual Income/Poverty Ratio	2.19	0.66	1.50	2.31	3.81
Mean Annual Income/Poverty Ratio	2.62	0.71	1.38	2.64	4.29
Mean Number of Months Eligible for WIC	5.0	12.0	8.1	3.3	0.0
Income Eligible for WIC in					
January	38.9%	100.0%	54.3%	26.4%	0.0%
February	42.3%	100.0%	69.3%	32.3%	0.0%
March	40.0%	100.0%	61.7%	25.8%	0.0%
April	40.0%	100.0%	64.7%	22.7%	0.0%
May	38.2%	100.0%	57.9%	18.7%	0.0%
June	40.4%	100.0%	64.6%	25.2%	0.0%
July	42.0%	100.0%	69.2%	30.4%	0.0%
August	41.6%	100.0%	69.7%	27.4%	0.0%
September	43.0%	100.0%	76.8%	28.6%	0.0%
October	41.8%	100.0%	73.6%	24.9%	0.0%
November	43.1%	100.0%	75.1%	31.4%	0.0%
December	44.1%	100.0%	76.3%	36.0%	0.0%
Unweighted Sample Size	11,098	2,730	1,712	1,869	4,787

TABLE F.3 *(continued)*

WIC INCOME ELIGIBILITY OF MOTHERS,
BY AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF INFANTS	100.0%	100.0%	100.0%	100.0%	100.0%
Median Annual Income/Poverty Ratio	2.27	0.58	1.42	2.39	3.94
Mean Annual Income/Poverty Ratio	2.72	0.62	1.30	2.69	4.42
Mean Number of Months Eligible for WIC	4.4	12.0	7.2	2.8	0.0
Income Eligible for WIC in					
January	32.1%	100.0%	42.9%	13.9%	0.0%
February	35.5%	100.0%	57.9%	17.4%	0.0%
March	33.0%	100.0%	48.4%	12.6%	0.0%
April	33.8%	100.0%	51.9%	13.4%	0.0%
May	33.5%	100.0%	49.6%	14.2%	0.0%
June	34.8%	100.0%	51.5%	20.5%	0.0%
July	37.4%	100.0%	60.3%	26.3%	0.0%
August	37.9%	100.0%	64.6%	24.3%	0.0%
September	39.4%	100.0%	69.5%	28.2%	0.0%
October	40.3%	100.0%	74.3%	27.7%	0.0%
November	42.5%	100.0%	77.8%	37.6%	0.0%
December	42.5%	100.0%	75.1%	40.9%	0.0%
Unweighted Sample Size	1,948	418	345	304	881

TABLE F.3 *(continued)*

WIC INCOME ELIGIBILITY OF MOTHERS,
BY AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF CHILDREN AGE 1 TO 4	100.0%	100.0%	100.0%	100.0%	100.0%
Median Annual Income/Poverty Ratio	2.17	0.68	1.51	2.28	3.80
Mean Annual Income/Poverty Ratio	2.60	0.72	1.40	2.63	4.27
Mean Number of Months Eligible for WIC	5.1	12.0	8.4	3.4	0.0
Income Eligible for WIC in					
January	40.3%	100.0%	57.2%	28.7%	0.0%
February	43.8%	100.0%	72.2%	35.1%	0.0%
March	41.5%	100.0%	65.2%	28.3%	0.0%
April	41.3%	100.0%	68.0%	24.5%	0.0%
May	39.2%	100.0%	60.0%	19.5%	0.0%
June	41.6%	100.0%	67.9%	26.1%	0.0%
July	43.0%	100.0%	71.4%	31.1%	0.0%
August	42.4%	100.0%	71.0%	28.0%	0.0%
September	43.7%	100.0%	78.6%	28.7%	0.0%
October	42.1%	100.0%	73.4%	24.3%	0.0%
November	43.3%	100.0%	74.4%	30.2%	0.0%
December	44.5%	100.0%	76.6%	35.1%	0.0%
Unweighted Sample Size	9,150	2,312	1,367	1,565	3,906

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

trend over the course of the year, but monthly eligibility rates range between 20 and 35 percent.

Family Structure

Table F.4 shows selected characteristics of the families of infants and children for each of the four eligibility groups. Because family composition can change over the course of the year, static characteristics (for example, family size, marital status of the mother) were measured as of the March after the reference year (comparable to the CPS interview month). Measures of change (such as the percent of infants and children whose mothers experience a change in marital status) refer to the reference calendar year.

Family composition at any point and changes in family composition over time may both be related to economic well-being. In analyzing income eligibility for WIC, family size comes into play in two different ways. First, families with more adults have more potential earners and are likely to have higher incomes. Consistent with this description, Table F.4 indicates that mothers who are CPS eligible are less likely to be living with a spouse present than mothers who are not CPS eligible. Within the group of CPS-eligible mothers, mothers who are eligible in every month are less likely be living with a spouse present than mothers who are eligible in some, but not all, months. Within the group of CPS-ineligible mothers, mothers who are eligible in some, but not all, months are less likely be living with a spouse present than mothers who are ineligible in every month.

A second way that family composition affects WIC income eligibility is through the relationship between family size and the level of the eligibility threshold--larger families have higher income eligibility thresholds than smaller families. The results in Table F.4 show that children with more siblings are more likely to have mothers who are income eligible for WIC than children with fewer siblings. Furthermore, average family size is highest among infants and children whose mothers are both CPS eligible and eligible in all 12 months of the reference year, and lowest among infants and children whose mothers are neither CPS eligible nor eligible in any month during the reference year. This suggests that family size is related to WIC income eligibility primarily through its effect on the eligibility threshold rather than its effect on family income.

Most infants and children have mothers who experienced no change in either family size or marital status during the reference year.[4] Among those living in families that did experience a change in size, nearly all showed mixed patterns of changes.[5] The mothers of infants and children in Group 2 are most likely to show changes in marital status and family size among the four groups, with the mothers of Group 1 the next most likely. Although higher income thus

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[4]The estimate for mothers of infants does not count the new baby.

[5]Families with mixed patterns of change experienced at least one month-to-month increase in size *and* at least one month-to-month decrease in size.

TABLE F.4

FAMILY STRUCTURE OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF ALL CHILDREN UNDER AGE 5	100.0%	100.0%	100.0%	100.0%	100.0%
Number of Adults					
0	0.1%	0.2%	0.1%	0.0%	0.0%
1	17.0%	45.1%	21.2%	4.9%	2.8%
2	74.7%	46.9%	70.0%	85.9%	89.3%
3 or more	8.2%	7.8%	8.7%	9.2%	7.9%
Number of Other Children in Family					
0	25.7%	15.4%	20.7%	26.7%	33.6%
1	40.4%	31.2%	40.3%	40.9%	46.0%
2	21.8%	26.0%	26.3%	24.0%	16.4%
3 or more	12.1%	27.3%	12.7%	8.3%	4.0%
Average Family Size	4.2	4.6	4.3	4.3	4.0
Change in Family Size During Prior Year					
Decrease	1.6%	1.5%	2.0%	1.6%	1.5%
No Change	79.4%	74.4%	66.4%	80.4%	87.3%
Increase	1.0%	1.1%	0.8%	1.0%	0.9%
Mixed Patterns	18.0%	22.9%	30.8%	17.0%	10.3%
Mother's Marital Status					
Married, Spouse Present	76.4%	44.9%	72.1%	89.5%	92.5%
Married, Spouse Absent	0.9%	1.8%	2.3%	0.0%	0.1%
Widowed, Divorced, Separated	8.8%	18.1%	12.7%	4.4%	3.2%
Never Married	13.9%	35.2%	12.9%	6.1%	4.2%
Change in Mother's Marital Status	4.5%	5.6%	10.0%	4.5%	1.7%
Unweighted Sample Sizes	11,098	2,730	1,712	1,869	4,787

TABLE F.4 *(continued)*

FAMILY STRUCTURE OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF INFANTS	100.0%	100.0%	100.0%	100.0%	100.0%
Number of Adults					
0	0.2%	0.5%	0.6%	0.0%	0.0%
1	15.6%	46.2%	23.6%	3.0%	1.4%
2	74.7%	44.9%	66.3%	82.7%	90.4%
3 or more	9.4%	8.4%	9.6%	14.3%	8.2%
Number of Other Children in Family					
0	34.0%	16.3%	27.6%	38.7%	44.0%
1	37.4%	29.0%	40.5%	35.6%	40.8%
2	17.5%	24.8%	20.4%	17.9%	12.4%
3 or more	11.1%	29.9%	11.5%	7.8%	2.7%
Average Family Size	4.1	4.7	4.1	4.2	3.9
Change in Family Size During Prior Year					
Decrease	0.9%	2.4%	0.8%	0.1%	0.4%
No Change	85.4%	77.3%	75.7%	86.6%	93.3%
Increase	0.3%	0.6%	0.1%	0.5%	0.2%
Mixed Patterns	13.4%	19.7%	23.4%	12.7%	6.1%
Mother's Marital Status					
Married, Spouse Present	75.6%	40.8%	67.6%	89.0%	91.8%
Married, Spouse Absent	0.9%	2.0%	2.1%	0.0%	0.2%
Widowed, Divorced, Separated	6.0%	18.2%	7.0%	1.6%	1.1%
Never Married	17.4%	39.0%	23.4%	9.5%	6.9%
Change in Mother's Marital Status	4.7%	7.8%	6.4%	5.5%	2.2%
Unweighted Sample Size	1,948	418	345	304	881

TABLE F.4 *(continued)*

FAMILY STRUCTURE OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF CHILDREN AGE 1 TO 4	100.0%	100.0%	100.0%	100.0%	100.0%
Number of Adults					
0	0.0%	0.2%	0.0%	0.0%	0.0%
1	17.3%	44.9%	20.6%	5.2%	3.1%
2	74.7%	47.2%	70.9%	86.5%	89.1%
3 or more	8.0%	7.7%	8.5%	8.3%	7.8%
Number of Other Children in Family					
0	23.9%	15.3%	18.9%	24.4%	31.2%
1	41.0%	31.5%	40.2%	42.0%	47.1%
2	22.7%	26.2%	27.8%	25.2%	17.3%
3 or more	12.3%	26.8%	13.0%	8.4%	4.2%
Average Family Size	4.3	4.6	4.4	4.3	4.0
Change in Family Size During Prior Year					
Decrease	1.8%	1.4%	2.3%	1.9%	1.7%
No Change	78.2%	74.0%	64.0%	79.2%	85.9%
Increase	1.1%	1.2%	1.0%	1.1%	1.0%
Mixed Patterns	19.0%	23.5%	32.7%	17.8%	11.3%
Mother's Marital Status					
Married, Spouse Present	76.6%	45.6%	73.2%	89.6%	92.6%
Married, Spouse Absent	0.9%	1.8%	2.4%	0.0%	0.1%
Widowed, Divorced, Separated	9.4%	18.1%	14.2%	4.9%	3.7%
Never Married	13.1%	34.5%	10.2%	5.5%	3.6%
Change in Mother's Marital Status	4.5%	5.2%	10.9%	4.3%	1.6%
Unweighted Sample Size	9,150	2,312	1,367	1,565	3,906

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

seems to be associated with greater relative stability of family size and of the mother's marital status, the differences across the four groups of infants and children are not large.

Demographic Characteristics of Mothers

Table F.5 shows that the demographic characteristics of mothers are associated with the WIC income eligibility groups as would be expected. A strong relationship exists between the mother's age and the eligibility group. Infants and children with younger mothers are more likely to be in eligibility Groups 1 and 2 than those with older mothers. Infants and children whose mothers have more education are more likely to be in Groups 3 and 4 than those whose mothers have less education. White infants have mothers with lower eligibility rates than Hispanic infants, and Hispanic infants have mothers with lower eligibility rates than black infants. For children between ages 1 and 4, there does not appear to be a difference between black and Hispanic children.

Employment and Program Participation

The patterns of employment observed *across* the four WIC eligibility groups are consistent with the underlying hierarchy of economic well-being already described (Table F.6). Infants and children in Group 1, who had mothers with the lowest adjusted incomes (Table F.2), also had mothers with the lowest likelihood of having any months with earnings. When their mothers did have earnings, they worked for fewer months than the mothers of infants and children in any of the other three groups. The number of months with earnings among the mothers of infants and children in Groups 2 through 4 are also strongly related to the underlying hierarchy, but the differences in the likelihood of having *any* earnings across those groups are less dramatic.

Within each of the four eligibility groups, the distributions of months with earnings for infants' and young children's mothers are very close. This may reflect two offsetting factors: (1) new mothers of infants may have been employed up to the time of birth, then left employment; and (2) some mothers of older children may have returned to work after taking time off.

Because the entire family, rather than selected individuals within the family, receives AFDC and food stamp benefits, it is probable that if a child's mother reported participating in either of these programs the child was also participating. Eligibility for WIC and Medicaid, however, is based on characteristics of both the individual and the family. It is possible (indeed, likely) that infants and children could be WIC or Medicaid program participants while their mothers and older siblings are not. For WIC and Medicaid, therefore, a distinction is made between the program participation of infants, children, and their mothers. Table F.6 includes estimates of program participation in all four programs for the mothers of infants and children. Estimates of participation in WIC and Medicaid for the infants and children themselves are presented separately in Table F.7.

TABLE F.5

DEMOGRAPHIC CHARACTERISTICS OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF ALL CHILDREN UNDER AGE 5	100.0%	100.0%	100.0%	100.0%	100.0%
Mother's Age					
Under 18	0.7%	1.4%	0.7%	0.3%	0.3%
18 - 21	7.5%	14.6%	12.1%	4.9%	2.4%
22 - 25	18.5%	28.5%	23.1%	18.5%	10.6%
26 - 35	58.7%	47.3%	53.9%	62.3%	66.3%
Over 35	14.5%	8.2%	10.1%	13.9%	20.4%
Race / Ethnicity					
White	70.1%	45.7%	66.4%	79.4%	83.0%
Black	12.9%	27.8%	13.1%	7.1%	6.0%
Hispanic	13.0%	21.5%	17.9%	9.7%	7.2%
Other	4.0%	5.0%	2.6%	3.8%	3.9%
Mother's Education					
Less than High School	18.2%	41.2%	24.6%	11.1%	4.2%
High School	34.2%	38.4%	41.5%	38.1%	27.1%
College Grad	47.7%	20.4%	34.0%	50.9%	68.7%
Unweighted Sample Size	11,098	2,730	1,712	1,869	4,787

TABLE F.5 *(continued)*

DEMOGRAPHIC CHARACTERISTICS OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF INFANTS	100.0%	100.0%	100.0%	100.0%	100.0%
Mother's Age					
Under 18	2.2%	3.8%	2.8%	0.7%	1.6%
18 - 21	11.8%	22.5%	21.1%	7.5%	4.0%
22 - 25	21.8%	29.1%	26.7%	23.2%	15.6%
26 - 35	56.1%	40.4%	43.3%	61.7%	67.6%
Over 35	8.1%	4.2%	6.1%	6.9%	11.2%
Race / Ethnicity					
White	70.9%	49.3%	63.6%	78.3%	82.2%
Black	11.8%	25.7%	15.0%	7.6%	5.0%
Hispanic	13.2%	19.9%	17.6%	11.0%	8.7%
Other	4.1%	5.1%	3.8%	3.1%	4.1%
Mother's Education					
Less than High School	17.8%	42.8%	25.8%	10.3%	4.5%
High School	34.3%	39.8%	42.5%	35.1%	27.6%
College Grad	47.9%	17.4%	31.7%	54.6%	67.9%
Unweighted Sample Size	1,948	418	345	304	881

TABLE F.5 *(continued)*

DEMOGRAPHIC CHARACTERISTICS OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF CHILDREN AGE 1 TO 4	100.0%	100.0%	100.0%	100.0%	100.0%
Mother's Age					
Under 18	0.3%	0.9%	0.2%	0.3%	0.0%
18 - 21	6.6%	13.3%	9.8%	4.4%	2.0%
22 - 25	17.9%	28.4%	22.2%	17.6%	9.5%
26 - 35	59.3%	48.5%	56.6%	62.4%	66.0%
Over 35	15.9%	8.9%	11.2%	15.3%	22.5%
Race / Ethnicity					
White	69.9%	45.0%	67.1%	79.6%	83.1%
Black	13.2%	28.2%	12.7%	7.0%	6.2%
Hispanic	13.0%	21.8%	17.9%	9.4%	6.8%
Other	3.9%	5.0%	2.3%	3.9%	3.9%
Mother's Education					
Less than High School	18.2%	40.9%	24.3%	11.2%	4.1%
High School	34.2%	38.2%	41.2%	38.6%	27.0%
College Grad	47.6%	20.9%	34.5%	50.1%	68.9%
Unweighted Sample Size	9,150	2,312	1,367	1,565	3,906

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

TABLE F.6

EMPLOYMENT AND PROGRAM PARTICIPATION OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF ALL CHILDREN UNDER AGE 5	100.0%	100.0%	100.0%	100.0%	100.0%
Any Months with Earnings in Prior Year	62.3%	35.0%	63.0%	71.6%	75.3%
Months with Earnings					
None	37.7%	65.0%	37.1%	28.4%	24.7%
1 - 3	6.6%	9.2%	10.4%	5.1%	4.1%
4 - 6	7.0%	6.3%	11.8%	9.2%	4.7%
7 - 9	7.9%	5.4%	11.4%	12.2%	6.4%
10 - 12	40.8%	14.1%	29.3%	45.1%	60.1%
Any WIC in Prior Year	10.7%	26.2%	18.3%	3.8%	1.0%
Any Medicaid in Prior Year	24.6%	69.1%	27.8%	7.3%	2.6%
Any Food Stamps in Prior Year	22.2%	68.3%	21.7%	4.4%	0.9%
Any AFDC in Prior Year	15.0%	47.0%	12.4%	2.9%	1.2%
Months Receiving WIC in Prior Year					
None	89.3%	73.8%	81.7%	96.2%	99.0%
1 - 3	3.7%	8.2%	6.7%	1.8%	0.5%
4 - 6	3.9%	9.6%	6.4%	1.5%	0.4%
7 - 9	2.2%	6.2%	3.1%	0.3%	0.1%
10 - 12	0.9%	2.1%	2.1%	0.2%	0.0%
Months Receiving Medicaid in Prior Year					
None	75.4%	30.9%	72.2%	92.7%	97.4%
1 - 3	2.8%	5.7%	4.7%	1.8%	0.6%
4 - 6	3.5%	7.2%	7.2%	1.6%	0.5%
7 - 9	3.1%	7.0%	5.3%	1.5%	0.4%
10 - 12	15.2%	49.2%	10.6%	2.3%	1.2%
Months of Food Stamps in Prior Year					
None	77.8%	31.7%	78.3%	95.6%	99.1%
1 - 3	2.6%	5.0%	5.7%	1.6%	0.2%
4 - 6	2.4%	5.1%	5.1%	1.0%	0.1%
7 - 9	2.6%	7.4%	4.0%	0.2%	0.1%
10 - 12	14.6%	50.8%	6.9%	1.6%	0.4%
Months Receiving AFDC In Prior Year					
None	85.0%	53.0%	87.6%	97.1%	98.8%
1 - 3	1.4%	3.3%	2.4%	0.5%	0.3%
4 - 6	1.6%	3.6%	3.1%	0.5%	0.2%
7 - 9	1.3%	3.5%	1.8%	0.4%	0.1%
10 - 12	10.7%	36.5%	5.2%	1.5%	0.6%
Unweighted Sample Size	11,098	2,730	1,712	1,869	4,787

TABLE F.6 *(continued)*

EMPLOYMENT AND PROGRAM PARTICIPATION OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF INFANTS	100.0%	100.0%	100.0%	100.0%	100.0%
Any Months with Earnings in Prior Year	66.9%	31.6%	65.3%	79.8%	80.6%
Months with Earnings					
None	33.1%	68.4%	34.7%	20.2%	19.4%
1 - 3	7.4%	10.5%	10.4%	6.5%	4.8%
4 - 6	8.1%	6.4%	11.9%	10.9%	6.2%
7 - 9	12.2%	5.2%	16.7%	19.7%	11.1%
10 - 12	39.2%	9.5%	26.3%	42.7%	58.5%
Any WIC in Prior Year	20.4%	54.8%	32.2%	8.8%	2.2%
Any Medicaid in Prior Year	28.7%	80.7%	40.1%	12.6%	3.5%
Any Food Stamps in Prior Year	20.8%	70.9%	20.4%	5.9%	1.1%
Any AFDC In Prior Year	14.0%	47.3%	13.9%	4.2%	1.0%
Months Receiving WIC in Prior Year					
None	79.6%	45.2%	67.8%	91.2%	97.8%
1 - 3	5.4%	10.7%	9.8%	3.9%	1.4%
4 - 6	8.2%	24.6%	10.5%	3.4%	0.7%
7 - 9	4.5%	14.1%	6.7%	1.0%	0.1%
10 - 12	2.3%	5.4%	5.2%	0.5%	0.0%
Months Receiving Medicaid in Prior Year					
None	71.3%	19.3%	59.9%	87.4%	96.5%
1 - 3	3.3%	6.3%	6.0%	3.0%	0.8%
4 - 6	5.2%	10.1%	9.8%	3.8%	1.1%
7 - 9	5.7%	12.5%	11.8%	2.1%	1.0%
10 - 12	14.5%	51.8%	12.5%	3.7%	0.6%
Months of Food Stamps in Prior Year					
None	79.3%	29.1%	79.6%	94.1%	98.9%
1 - 3	3.4%	6.9%	6.6%	2.2%	0.6%
4 - 6	2.4%	5.1%	3.6%	2.6%	0.4%
7 - 9	3.5%	10.3%	6.0%	0.0%	0.1%
10 - 12	11.6%	48.5%	4.3%	1.2%	0.0%
Months Receiving AFDC in Prior Year					
None	86.0%	52.7%	86.1%	95.8%	99.0%
1 - 3	1.8%	4.2%	3.2%	0.6%	0.3%
4 - 6	2.5%	6.3%	3.3%	1.5%	0.5%
7 - 9	2.2%	4.6%	4.9%	1.1%	0.2%
10 - 12	7.7%	32.2%	2.5%	1.1%	0.0%
Unweighted Sample Size	1,948	418	345	304	881

TABLE F.6 *(continued)*

EMPLOYMENT AND PROGRAM PARTICIPATION OF MOTHERS,
BY WIC ELIGIBILITY STATUS AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
MOTHERS OF CHILDREN AGE 1 TO 4	100.0%	100.0%	100.0%	100.0%	100.0%
Any Months with Earnings in Prior Year	61.4%	35.6%	62.3%	70.1%	74.1%
Months with Earnings					
None	38.6%	64.4%	37.7%	29.9%	25.9%
1 - 3	6.4%	9.0%	10.4%	4.9%	3.9%
4 - 6	6.8%	6.2%	11.8%	8.9%	4.4%
7 - 9	7.0%	5.5%	10.1%	10.7%	5.3%
10 - 12	41.1%	14.8%	30.1%	45.6%	60.5%
Any WIC in Prior Year	8.7%	21.2%	14.7%	2.8%	0.7%
Any Medicaid in Prior Year	23.7%	67.1%	24.7%	6.3%	2.4%
Any Food Stamps in Prior Year	22.5%	67.9%	22.0%	4.1%	0.9%
Any AFDC in Prior Year	15.3%	46.9%	12.1%	2.7%	1.2%
Months Receiving WIC in Prior Year					
None	91.3%	78.8%	85.3%	97.2%	99.3%
1 - 3	3.4%	7.8%	5.9%	1.4%	0.3%
4 - 6	3.0%	7.0%	5.4%	1.2%	0.3%
7 - 9	1.7%	4.9%	2.1%	0.2%	0.1%
10 - 12	0.6%	1.5%	1.3%	0.1%	0.0%
Months Receiving Medicaid in Prior Year					
None	76.3%	32.9%	75.3%	93.8%	97.6%
1 - 3	2.6%	5.5%	4.4%	1.6%	0.5%
4 - 6	3.2%	6.7%	6.5%	1.2%	0.4%
7 - 9	2.5%	6.1%	3.6%	1.4%	0.3%
10 - 12	15.4%	48.8%	10.1%	2.1%	1.3%
Months of Food Stamps in Prior Year					
None	77.5%	32.1%	78.0%	95.9%	99.1%
1 - 3	2.4%	4.7%	5.4%	1.5%	0.1%
4 - 6	2.4%	5.1%	5.5%	0.7%	0.1%
7 - 9	2.5%	6.9%	3.5%	0.2%	0.2%
10 - 12	15.2%	51.2%	7.6%	1.7%	0.5%
Months Receiving AFDC in Prior Year					
None	84.8%	53.1%	87.9%	97.3%	98.8%
1 - 3	1.4%	3.1%	2.2%	0.5%	0.2%
4 - 6	1.4%	3.1%	3.0%	0.3%	0.1%
7 - 9	1.1%	3.4%	1.0%	0.3%	0.1%
10 - 12	11.4%	37.3%	5.8%	1.6%	0.7%
Unweighted Sample Size	9,150	2,312	1,367	1,565	3,906

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

TABLE F.7

PROGRAM PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY STATUS OF MOTHER AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
ALL CHILDREN UNDER AGE 5	100.0%	100.0%	100.0%	100.0%	100.0%
Any WIC in Prior Year	20.2%	49.6%	30.7%	9.5%	2.2%
Any Medicaid in Prior Year	26.8%	73.0%	30.7%	9.1%	3.7%
Months Receiving WIC in Prior Year					
None	79.8%	50.5%	69.1%	90.5%	97.8%
1 - 3	3.5%	5.9%	7.0%	2.8%	0.8%
4 - 6	4.2%	9.1%	8.1%	2.1%	0.5%
7 - 9	3.8%	9.9%	4.9%	2.0%	0.3%
10 - 12	8.7%	24.6%	10.9%	2.5%	0.5%
Months Receiving Medicaid in Prior Year					
None	73.2%	27.0%	69.3%	90.9%	96.3%
1 - 3	4.1%	7.6%	8.0%	2.8%	0.8%
4 - 6	4.7%	9.1%	8.0%	2.8%	1.4%
7 - 9	3.7%	10.0%	5.1%	1.4%	0.2%
10 - 12	14.3%	46.2%	9.6%	2.1%	1.2%
Unweighted Sample Size	11,098	2,730	1,712	1,869	4,787

TABLE F.7 *(continued)*

PROGRAM PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY STATUS OF MOTHER AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
INFANTS	100.0%	100.0%	100.0%	100.0%	100.0%
Any WIC in Prior Year	19.9%	52.5%	30.3%	11.1%	2.2%
Any Medicaid in Prior Year	23.5%	66.4%	30.9%	11.2%	3.3%
Months Receiving WIC in Prior Year					
None	80.1%	47.5%	69.7%	88.9%	97.8%
1 - 3	7.6%	18.1%	13.0%	3.7%	1.4%
4 - 6	7.3%	18.3%	12.3%	4.9%	0.4%
7 - 9	4.6%	15.1%	3.9%	2.5%	0.3%
10 - 12	0.4%	1.0%	1.1%	0.0%	0.0%
Months Receiving Medicaid in Prior Year					
None	76.5%	33.6%	69.1%	88.8%	96.7%
1 - 3	9.9%	25.0%	16.8%	4.9%	1.1%
4 - 6	8.6%	24.1%	9.8%	4.7%	1.8%
7 - 9	4.4%	15.4%	3.9%	1.6%	0.2%
10 - 12	0.6%	2.0%	0.5%	0.0%	0.1%
Unweighted Sample Size	1,948	418	345	304	881

TABLE F.7 *(continued)*

PROGRAM PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY STATUS OF MOTHER AND AGE OF CHILD

	Weighted Estimates				
		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
CHILDREN AGE 1 TO 4	100.0%	100.0%	100.0%	100.0%	100.0%
Any WIC in Prior Year	20.3%	49.0%	31.0%	9.1%	2.2%
Any Medicaid in Prior Year	27.5%	74.1%	30.7%	8.7%	3.8%
Months Receiving WIC in Prior Year					
None	79.7%	51.0%	69.0%	90.9%	97.8%
1 - 3	2.6%	3.8%	5.4%	2.6%	0.7%
4 - 6	3.6%	7.5%	7.0%	1.6%	0.6%
7 - 9	3.6%	9.1%	5.1%	1.9%	0.3%
10 - 12	10.5%	28.7%	13.4%	3.0%	0.7%
Months Receiving Medicaid in Prior Year					
None	72.5%	25.9%	69.3%	91.3%	96.2%
1 - 3	2.8%	4.6%	5.7%	2.4%	0.8%
4 - 6	3.9%	6.5%	7.6%	2.5%	1.3%
7 - 9	3.6%	9.1%	5.4%	1.4%	0.2%
10 - 12	17.2%	53.9%	12.0%	2.5%	1.5%
Unweighted Sample Size	9,150	2,312	1,367	1,565	3,906

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

Differences in patterns and levels of participation in WIC, Medicaid, AFDC, and the FSP across the four WIC eligibility groups are clearly related to the differences in average income and in income variability across the four groups. For each of the four programs, participation is highest in Group 1, lower in Group 2, and lowest (and relatively close to zero) in Groups 3 and 4 (with only small differences between the last two groups). About two-thirds of Group 1 mothers participate in the FSP and in Medicaid (with nearly three-quarters of Group 1 children in Medicaid), and about half receive AFDC. Participation in these programs is substantially higher for Group 1 than for any of the other groups, and very large proportions of those receiving benefits from these programs receive benefits for most of the year. Participation among Group 2 members is much lower; only about a quarter receive Medicaid and food stamps, and fewer still receive AFDC and WIC. Groups 3 and 4 (members of which have annual incomes above the WIC eligibility threshold) are most likely to participate in Medicaid and WIC (which have the highest income eligibility thresholds) and are more likely to participate for the children; however, only about 10 percent of the children in these groups participate.

The patterns of program participation of infants' and children's mothers within each of the four WIC eligibility groups differ, but the patterns for the infants and children themselves are similar. The likelihood of participation in WIC and Medicaid for 1 or more months during the reference year is higher for mothers of infants than for mothers of children within each of the four eligibility groups (Table F.6). This reflects the categorical *in*eligibility of mothers after a certain period postpartum for WIC and, among mothers not on AFDC, for Medicaid. (Some mothers of children ages 1 to 4 may qualify because of a subsequent pregnancy.) In contrast, infants and older children are roughly equally likely to receive WIC and Medicaid in each of the four groups (Table F.7). Thus, mothers of infants participate in these programs at rates similar to their infants, while mothers of children ages 1 to 4 are less likely to be participating than their children.

Patterns of Income Eligibility Among WIC Participants

A last part of the analysis examined how many infants and children who are reported WIC participants are eligible for WIC on the basis of their annual and monthly incomes. This analysis addressed three questions:

1. How often do WIC participants in a given month appear ineligible on the basis of their annual income?

2. Did WIC participants who are income ineligible on the basis of annual income have any months of income eligibility in the past year?

3. Did WIC participants who are income ineligible on the basis of annual income have any months of adjunct eligibility (through participation in Medicaid) in the past year?

To address these questions, the tables use the same four income eligibility groups as the previous tables in this appendix, but they focus only on reported WIC participants.

Because of small sample sizes, infants and children are grouped together in much of this analysis. Overall, 2,069 infants and children are identified in the first analysis database as WIC participants for at least 1 month during the 1990, 1991, or 1992 calendar years. Table F.8 shows the unweighted sample sizes in each of the four WIC eligibility groups for infant and child WIC participants. There are only 25 WIC infants in Group 3 and 23 WIC infants in Group 4; therefore, the analyses of apparently ineligible WIC infants presented here are extremely limited. As discussed elsewhere in this report, the SIPP has been shown to undercount participants in many public programs, including WIC. The small number of participating infants identified by this study in the SIPP is partly due to the undercount in the SIPP. It is also partly a result of WIC being a relatively small program combined with the relatively small overall sample size for infants in the SIPP.

Table F.9 shows estimated average annual and monthly levels of WIC participation for all infants and children under age 5 during the 1990, 1991, and 1992 calendar years. Of a total 19.7 million infants and children under age 5, 4 million (20.4 percent) participated in WIC for 1 or more months during the reference calendar year. Of those, 12.3 percent were not identified as income eligible for WIC using methods that mimic those used with the CPS (this is the total of those in Groups 3 and 4). Nearly 5 percent of the 4 million WIC participants identified in the SIPP appeared to be income *in*eligible using either a CPS-type measure or a measure based on monthly income and family composition.

An average of 10 percent of the infants and children who received WIC benefits in any given month appeared to be ineligible for the program on the basis of their annual income (this is the sum of those in Groups 3 and 4). An average of 6.4 percent of the infants and children who received WIC benefits in any given month were in Group 3--ineligible for the program on the basis of their annual income, but income eligible for WIC for at least 1 month. These infants and children were income eligible for an average of 4 months during the reference calendar year.

Tables F.10 and F.11 present similar estimates for infants and children separately. Infants were identified as children under age 1 as of the March following the reference year. None of these infants had been born before April of the reference year. The number of infants identified as WIC participants in the first SIPP analysis database is extremely small. Over the 3-year period, only 361 infants who had participated in WIC for at least 1 month were identified. In spite of the very small sample, the distribution of WIC infants across the four eligibility groups (Table F.10) is very close to that of the full group of WIC-participating infants and children (Table F.9). Because children between ages 1 and 4 make up 83 percent of the total sample (and 100 percent of the sample for January through March of the

TABLE F.8

INFANTS AND CHILDREN PARTICIPATING IN WIC FOR 1 OR MORE MONTHS, BY WIC ELIGIBILITY GROUP (UNWEIGHTED SAMPLE SIZES)

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
All Infants and Children	2,069	1,322	490	158	99
Infants	361	211	102	25	23
Children Age 1 to 4	1,708	1,111	388	133	76

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

NOTE: Reported sample sizes are the total number of observations across calendar years 1990, 1991, and 1992.

TABLE F.9

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(ALL INFANTS AND CHILDREN UNDER AGE 5)

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
Total Population	19,665,584	5,088,072	3,056,797	3,145,269	8,375,445
Population that Participated in WIC at Any Time During Year	4,013,527	2,520,897	1,000,302	296,349	195,979
Percent of Total Population in Each Eligibility Group	100.0%	25.9%	15.5%	16.0%	42.6%
Percent of Population that Participated in WIC at Any Time During Year in Each Eligibility Group	20.4%	12.8%	5.1%	1.5%	1.0%
Mean Months Participating in WIC Among WIC Participants	7.9	8.5	7.0	6.8	5.8
Total Monthly WIC Participants					
January	2,324,762	1,538,802	506,769	187,106	92,085
February	2,323,881	1,548,825	515,173	173,255	86,628
March	2,434,548	1,656,342	528,123	169,838	80,245
April	2,496,279	1,698,549	560,149	158,629	78,952
May	2,585,765	1,789,387	552,219	157,171	86,988
June	2,610,045	1,803,473	547,070	167,307	92,195
July	2,648,719	1,830,531	553,406	166,001	98,781
August	2,737,066	1,895,041	565,197	174,294	102,535
September	2,801,964	1,896,093	629,386	175,572	100,913
October	2,858,578	1,936,044	660,959	165,177	96,399
November	2,905,156	1,946,293	697,817	155,738	105,308
December	2,918,273	1,946,536	697,303	153,281	121,153
12-Month Average	2,637,086	1,790,493	584,464	166,947	95,182

TABLE F.9 (continued)

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(ALL INFANTS AND CHILDREN UNDER AGE 5)

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
Percent of Monthly Participants in Each Eligibility Group					
January	100.0%	66.2%	21.8%	8.0%	4.0%
February	100.0%	66.6%	22.2%	7.5%	3.7%
March	100.0%	68.0%	21.7%	7.0%	3.3%
April	100.0%	68.0%	22.4%	6.4%	3.2%
May	100.0%	69.2%	21.4%	6.1%	3.4%
June	100.0%	69.1%	21.0%	6.4%	3.5%
July	100.0%	69.1%	20.9%	6.3%	3.7%
August	100.0%	69.2%	20.6%	6.4%	3.7%
September	100.0%	67.7%	22.5%	6.3%	3.6%
October	100.0%	67.7%	23.1%	5.8%	3.4%
November	100.0%	67.0%	24.0%	5.4%	3.6%
December	100.0%	66.7%	23.9%	5.3%	4.2%
12-Month Average	100.0%	67.9%	22.1%	6.4%	3.6%
UNWEIGHTED SAMPLE SIZES					
Total Population	11,007	2,730	1,621	1,779	4,877
Population that Participated in WIC at Any Time During Year	2,069	1,322	490	158	99
Mean Months Participating in WIC Among WIC Participants	2,069	1,322	490	158	99
Total Monthly WIC Participants					
January	1,168	788	237	98	45
February	1,193	806	250	94	43
March	1,237	846	258	91	42
April	1,287	882	278	85	42
May	1,333	922	281	85	45
June	1,356	939	282	87	48
July	1,375	951	284	87	53
August	1,397	971	284	90	52
September	1,433	974	316	92	51

TABLE F.9 (continued)

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(ALL INFANTS AND CHILDREN UNDER AGE 5)

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
October	1,460	992	327	89	52
November	1,483	998	345	86	54
December	1,483	998	341	84	60

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

NOTE: All estimates presented are the average of estimates for calendar years 1990, 1991, and 1992. Reported sample sizes are the total number of observations across all 3 years.

TABLE F.10

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(INFANTS)*

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
WEIGHTED ESTIMATES					
Total Population	3,275,406	752,774	477,728	377,514	1,667,390
Population that Participated in WIC at Any Time During Year	684,842	394,899	200,109	42,142	47,692
Percent of Total Population in Each Eligibility Group	100.0%	23.0%	14.6%	11.5%	50.9%
Percent of Population that Participated in WIC at Any Time During Year in Each Eligibility Group	20.9%	12.1%	6.1%	1.3%	1.5%
Mean Months Participating in WIC Among WIC Participants	4.4	4.7	4.0	4.6	3.6
Total Monthly WIC Participants					
April	21,199	12,282	8,917	0	0
May	112,074	78,781	20,246	7,138	5,909
June	176,406	125,742	28,684	10,293	11,687
July	243,132	165,806	46,790	16,310	14,226
August	351,676	222,052	79,700	27,073	22,850
September	444,908	264,564	118,026	36,016	26,302
October	503,516	296,304	147,600	35,888	23,723
November	557,104	335,789	164,143	31,802	25,370
December	623,212	368,624	183,785	31,298	39,506
9-Month Average	337,025	207,772	88,655	21,758	18,841

TABLE F.10 (continued)

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(INFANTS)*

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
Percent of Monthly Participants in Each Eligibility Group					
April	100.0%	57.9%	42.1%	0.0%	0.0%
May	100.0%	70.3%	18.1%	6.4%	5.3%
June	100.0%	71.3%	16.3%	5.8%	6.6%
July	100.0%	68.2%	19.2%	6.7%	5.9%
August	100.0%	63.1%	22.7%	7.7%	6.5%
September	100.0%	59.5%	26.5%	8.1%	5.9%
October	100.0%	58.8%	29.3%	7.1%	4.7%
November	100.0%	60.3%	29.5%	5.7%	4.6%
December	100.0%	59.1%	29.5%	5.0%	6.3%
9-Month Average	100.0%	63.2%	25.9%	5.8%	5.1%
UNWEIGHTED SAMPLE SIZES					
Total Population	1,858	418	255	220	965
Population that Participated in WIC at Any Time During Year	361	211	102	25	23
Mean Months Participating in WIC Among WIC Participants	361	211	102	25	23
Total Monthly WIC Participants					
April	12	8	4	0	0
May	53	34	11	4	4
June	93	65	16	6	6
July	129	84	27	10	8
August	178	111	40	16	11
September	231	136	61	21	13

TABLE F.10 (continued)

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(INFANTS)*

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
October	268	159	75	20	14
November	298	179	85	19	15
December	330	198	93	19	20

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

NOTE: All estimates presented are the average of estimates for calendar years 1990, 1991, and 1992. Reported sample sizes are the total number of observations across all 3 years.

* Because infants are identified in March of the year following the reference calendar year, none had been born prior to April of the reference year. The estimated mean number of months reported here are based only on the months subsequent to the infant's birth.

TABLE F.11

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(CHILDREN AGE 1 TO 4)

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
WEIGHTED ESTIMATES					
Total Population	16,390,178	4,335,298	2,579,069	2,767,756	6,708,055
Population that Participated in WIC at Any Time During Year	3,328,685	2,125,998	800,192	254,207	148,287
Percent of Total Population in Each Eligibility Group	100.0%	26.5%	15.7%	16.9%	40.9%
Percent of Population that Participated in WIC at Any Time During Year in Each Eligibility Group	100.0%	63.9%	24.0%	7.6%	4.5%
Mean Months Participating in WIC Among WIC Participants	8.6	9.2	7.8	7.1	6.6
Total Monthly WIC Participants					
January	2,324,762	1,538,802	506,769	187,106	92,085
February	2,323,881	1,548,825	515,173	173,255	86,628
March	2,434,548	1,656,342	528,123	169,838	80,245
April	2,475,080	1,686,267	551,232	158,629	78,952
May	2,473,692	1,710,607	531,973	150,033	81,079
June	2,433,639	1,677,731	518,387	157,013	80,508
July	2,405,587	1,664,725	506,616	149,691	84,556
August	2,385,391	1,672,989	485,497	147,221	79,684
September	2,357,056	1,631,528	511,360	139,556	74,612
October	2,355,063	1,639,740	513,358	129,289	72,676
November	2,348,052	1,610,504	533,673	123,936	79,938
December	2,295,060	1,577,912	513,519	121,983	81,647
12-Month Average	2,384,318	1,634,664	517,973	150,629	81,051

TABLE F.11 (continued)

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(CHILDREN AGE 1 TO 4)

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
Percent of Monthly Participants in Each Eligibility Group					
January	100.0%	66.2%	21.8%	8.0%	4.0%
February	100.0%	66.6%	22.2%	7.5%	3.7%
March	100.0%	68.0%	21.7%	7.0%	3.3%
April	100.0%	68.1%	22.3%	6.4%	3.2%
May	100.0%	69.2%	21.5%	6.1%	3.3%
June	100.0%	68.9%	21.3%	6.5%	3.3%
July	100.0%	69.2%	21.1%	6.2%	3.5%
August	100.0%	70.1%	20.4%	6.2%	3.3%
September	100.0%	69.2%	21.7%	5.9%	3.2%
October	100.0%	69.6%	21.8%	5.5%	3.1%
November	100.0%	68.6%	22.7%	5.3%	3.4%
December	100.0%	68.8%	22.4%	5.3%	3.6%
12-Month Average	100.0%	68.6%	21.7%	6.3%	3.4%
UNWEIGHTED SAMPLE SIZES					
Total Population	9,149	2,312	1,366	1,559	3,912
Population that Participated in WIC at Any Time During Year	1,708	1,111	388	133	76
Mean Months Participating in WIC Among WIC Participants	1,708	1,111	388	133	76
Total Monthly WIC Participants					
January	1,168	788	237	98	45
February	1,193	806	250	94	43
March	1,237	846	258	91	42
April	1,275	874	274	85	42
May	1,280	888	270	81	41
June	1,263	874	266	81	42
July	1,246	867	257	77	45
August	1,219	860	244	74	41
September	1,202	838	255	71	38

TABLE F.11 (continued)

WIC PARTICIPATION OF INFANTS AND CHILDREN,
BY WIC ELIGIBILITY GROUP
(CHILDREN AGE 1 TO 4)

		CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
	ALL	All Months	Some Months	Some Months	No Months
October	1,192	833	252	69	38
November	1,185	819	260	67	39
December	1,153	800	248	65	40

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

NOTE: All estimates presented are the average of estimates for calendar years 1990, 1991, and 1992. Reported sample sizes are the total number of observations across all 3 years.

reference year), the distribution of WIC children across the four eligibility groups (Table F.11) is extremely close to that of the combined group of participating infants and children.

Many possible explanations exist for the presence of infants and children identified in the SIPP as WIC participants who do not appear to be income eligible for the program. These include:

- Some infants and children who do not appear to be *income* eligible for WIC may be *adjunct* eligible because of their participation in Medicaid.

- Errors may occur in the identification of WIC participants in the SIPP. These errors are most likely to arise when survey respondents misidentify the programs they participate in. For example, some respondents may not understand the distinction between food stamps and WIC vouchers. This is unlikely to be a large factor, since the income eligibility criteria for the FSP are more stringent than those for WIC.

- Errors in the SIPP income data may be present. These errors are of two sorts: (1) survey respondent error in reporting income (either intentional or unintentional), and (2) errors and inconsistencies in the income amounts imputed to respondents by the Census Bureau when those respondents refuse to answer some (or all) of the income questions in the survey. Because current Census Bureau income imputation procedures do not take into account reported participation in means-tested transfer programs, the income amounts imputed by the Census Bureau are not necessarily consistent with those reports.

- Errors may be present in the income reported to WIC program caseworkers during the application process. Applicants may underreport income when applying for benefits. If these same people report accurate income amounts in the SIPP, this study may be correctly identifying them as income-ineligible participants.

- Inconsistencies may exist between the rules applied to the SIPP data and those program caseworkers use in determining income eligibility. In particular, this study may be measuring income using different accounting periods than those used in the application process. States have some flexibility in choosing a reference period over which income is measured when determining eligibility for WIC. Anecdotal evidence suggests that caseworkers also exercise some discretion in choosing whether to determine eligibility on the basis of income from the prior month, the prior 6 months, the prior year, or the most recent paycheck. In addition, this study is not taking full account of the recertification timetable in estimating

income eligibility. Infants are certified for the WIC program up to their first birthday. Children are certified for periods of up to 6 months, until they reach age 5. Any of these inconsistencies could lead to a different classification of an infant or child than the classification a program caseworker would use.

SIPP data on participation in Medicaid can be used to directly assess the magnitude of the first factor. SIPP data on participation in other means-tested programs may suggest the magnitude of the third and fourth factors. A comparison of income levels based on different accounting periods may suggest the magnitude of the final factor. Table F.12 presents data on program participation and the distribution of income relative to poverty for the sample of infants and children participating in WIC for 1 or more months during the reference calendar year.[6]

A substantial portion of WIC-participating infants and children in Groups 3 and 4 appears to be adjunct eligible through their participation in Medicaid. Of those infants and children in Group 3 who received WIC benefits for at least 1 month during the calendar year, 33 percent received Medicaid benefits for an average of 6.3 months. Of those in Group 4, 44 percent received Medicaid benefits for an average of 6.6 months.

A substantial portion of WIC-participating infants and children in Groups 3 and 4 received food stamps (19.1 percent for an average of 6.7 months) and AFDC (11.5 percent for an average of 7.6 months). Since each of these programs has more stringent income eligibility criteria than WIC, it is possible that errors in SIPP income measurement led the measures used here to incorrectly classify these infants and children as ineligible for WIC.

Table F.12 also presents the distributions of two measures of the income-to-poverty ratio among WIC participants in each of the four eligibility groups. The first measure is based on procedures that attempt to mimic the methods used with the CPS. The second measure is based on average monthly income and average family size, taking account of month-to-month changes in the size and composition of the child's family. While there are some notable differences in the distributions of these two measures for Group 2, the distributions for Groups 3 and 4 are remarkably similar across these two measures. As in Chapter III, these tabulations provide no evidence that estimates based on an income measure that takes into account month-to-month variations in family composition differ from those based on an income measure based on the assumption of fixed family size and composition.

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[6]Because of the extremely small sample of infants in Groups 3 and 4, separate tabulations are not presented for infants and for children between ages 1 and 4.

TABLE F.12

EARNINGS, INCOME, AND PARTICIPATION IN OTHER TRANSFER PROGRAMS BY WIC PARTICIPANTS, BY WIC ELIGIBILITY GROUP
(ALL CHILDREN UNDER AGE 5)

	ALL	CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
		All Months	Some Months	Some Months	No Months
WEIGHTED ESTIMATES					
Population that Participated in WIC at Any Time During Year	4,013,527	2,520,897	1,000,302	296,349	195,979
Mean Months Participating in WIC Among WIC Participants	7.9	8.5	7.0	6.8	5.8
Share of WIC Participants Income Eligible for 1+ Months	95.1%	100.0%	100.0%	100.0%	0.0%
Mean Months Eligible for WIC Among Eligible WIC Participants	9.5	10.8	7.7	4.0	0.0
Share of WIC Participants Receiving Medicaid for 1+ Months	72.7%	86.4%	55.7%	32.5%	43.6%
Mean Months Receiving Medicaid	8.7	9.4	6.8	6.3	6.6
Share of WIC Participants Receiving Food Stamps for 1+ Months	61.6%	79.6%	37.2%	17.3%	21.9%
Mean Months Receiving Food Stamps	8.7	9.2	6.1	6.0	7.5
Share of WIC Participants Receiving AFDC for 1+ Months	37.9%	51.1%	17.7%	6.9%	18.4%
Mean Months Receiving AFDC	8.8	9.1	6.7	7.8	7.6
Share of WIC Participants Whose Mothers Report Earnings for 1+ Months	43.5%	33.0%	54.0%	77.6%	73.0%
Mean Months with Earnings	7.2	6.6	6.9	9.1	9.1
CPS Annual Income / Poverty Ratio for WIC Participants Assuming Fixed Family Composition					
0.00 to 0.49	24.7%	36.6%	6.9%	0.0%	0.0%
0.50 to 1.00	29.2%	41.0%	13.8%	0.0%	0.0%
1.00 to 1.49	22.4%	21.7%	35.3%	0.0%	0.0%
1.50 to 1.85	11.5%	0.8%	44.1%	0.0%	0.0%
1.86 to 1.99	3.1%	0.0%	0.0%	39.8%	3.2%
2.00 to 2.49	4.7%	0.0%	0.0%	42.6%	32.3%
2.50 to 2.99	2.1%	0.0%	0.0%	11.8%	25.9%
3.00 +	2.3%	0.0%	0.0%	5.8%	38.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

TABLE F.12 (continued)

EARNINGS, INCOME, AND PARTICIPATION IN OTHER TRANSFER PROGRAMS BY WIC PARTICIPANTS, BY WIC ELIGIBILITY GROUP
(ALL CHILDREN UNDER AGE 5)

	ALL	CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
		All Months	Some Months	Some Months	No Months
Annualized Income / Poverty Ratio for WIC Participants Allowing for Monthly Variations in Family Composition					
0.00 to 0.49	20.4%	32.5%	0.0%	0.0%	0.0%
0.50 to 1.00	29.1%	43.3%	7.5%	0.0%	0.0%
1.00 to 1.49	22.2%	23.1%	30.8%	0.0%	0.0%
1.50 to 1.85	12.7%	1.1%	47.0%	3.8%	0.0%
1.86 to 1.99	4.0%	0.0%	7.1%	30.2%	0.0%
2.00 to 2.49	6.2%	0.0%	6.3%	42.0%	30.8%
2.50 to 2.99	2.5%	0.0%	0.2%	17.0%	24.9%
3.00 +	2.9%	0.0%	1.1%	6.9%	44.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
UNWEIGHTED SAMPLE SIZES					
Population that Participated in WIC at Any Time During Year	2,069	1,322	490	158	99
Mean Months Participating in WIC Among WIC Participants	2,069	1,322	490	158	99
Share of WIC Participants Income Eligible for 1+ Months	2,069	1,322	490	158	99
Mean Months Eligible for WIC Among Eligible WIC Participants	1,970	1,322	490	158	0
Share of WIC Participants Receiving Medicaid for 1+ Months	2,069	1,322	490	158	99
Mean Months Receiving Medicaid	1,480	1,131	256	42	51
Share of WIC Participants Receiving Food Stamps for 1+ Months	2,069	1,322	490	158	99
Mean Months Receiving Food Stamps	1,274	1,042	184	22	26
Share of WIC Participants Receiving AFDC for 1+ Months	2,069	1,322	490	158	99
Mean Months Receiving AFDC	809	689	85	12	23
Share of WIC Participants Whose Mothers Report Earnings for 1+ Months	2,069	1,322	490	158	99
Mean Months with Earnings	869	424	260	119	66

TABLE F.12 (continued)

EARNINGS, INCOME, AND PARTICIPATION IN OTHER TRANSFER PROGRAMS BY WIC PARTICIPANTS, BY WIC ELIGIBILITY GROUP
(ALL CHILDREN UNDER AGE 5)

	ALL	CPS Eligible		Not CPS Eligible	
		Income Eligible for WIC in			
		All Months	Some Months	Some Months	No Months
CPS Annual Income / Poverty Ratio for WIC Participants Assuming Fixed Family Composition					
0.00 to 0.49	505	471	34	0	0
0.50 to 1.00	642	564	78	0	0
1.00 to 1.49	447	277	170	0	0
1.50 to 1.85	218	10	208	0	0
1.86 to 1.99	63	0	0	61	2
2.00 to 2.49	99	0	0	65	34
2.50 to 2.99	50	0	0	24	26
3.00 +	45	0	0	8	37
Annualized Income / Poverty Ratio for WIC Participants Allowing For Monthly Variations in Family Composition					
0.00 to 0.49	412	412	0	0	0
0.50 to 1.00	643	596	47	0	0
1.00 to 1.49	448	300	148	0	0
1.50 to 1.85	244	14	224	6	0
1.86 to 1.99	80	0	33	47	0
2.00 to 2.49	124	0	31	62	31
2.50 to 2.99	59	0	1	33	25
3.00 +	59	0	6	10	43

SOURCE: Estimates prepared by MPR using extracts from the 1990 and 1991 SIPP Full Panel Longitudinal Research Files.

NOTE: All estimates presented are the average of estimates for calendar years 1990, 1991, and 1992. Reported sample sizes are the total number of observations across all 3 years.

In sum, these results suggest the following conclusions:

- An average of 10 percent of the infants and children who received WIC benefits in any given month appeared to be ineligible for the program on the basis of their annual income.

- An average of 6.4 percent of the infants and children who received WIC benefits in any given month appeared to be *ineligible* for the program on the basis of their annual income but appeared to be income *eligible* for WIC for at least 1 month. This suggests at least some of these children were eligible at the time of certification.

- Of those infants and children in Groups 3 and 4 who received WIC benefits for at least 1 month during the calendar year, 37 percent received Medicaid benefits for at least 1 month. On average, these infants and children received Medicaid for 6.4 months. Many of these children receiving Medicaid may have been certified for WIC as adjunct eligible.

APPENDIX G

ALTERNATE VERSIONS OF CHAPTER IV TABLES, WITH PREGNANT WOMAN COUNTED AS TWO

TABLE G.1

PATTERNS OF INCOME ELIGIBILITY FOR WIC DURING PREGNANCY
(Sample with Data for Entire Pregnancy)

	Percent of All Pregnant Women	Percent of Pregnant Women Income Eligible for WIC in at Least One Month of Pregnancy
Percent of Pregnant Women Who First Become Income Eligible for WIC During the Following Months:		
Never Eligible	42.5	n.a.
1	38.9	67.6
2	3.0	5.3
3	2.3	4.0
4	2.1	3.6
5	2.1	3.7
6	1.9	3.3
7	1.3	2.3
8	1.2	2.1
9	2.2	3.8
Birth Month	2.4	4.2
Percent Income Eligible Throughout Pregnancy	26.1	45.4
Percent Income Eligible in Some Month Who Lose Eligibility in a Later Month	22.6	39.3
Distribution of Pregnant Women by Number of Months Eligible for WIC During Pregnancy		
Never Eligible	42.5	n.a.
1	5.1	8.8
2	4.6	7.9
3	3.1	5.4
4	3.5	6.1
5	2.1	3.6
6	3.1	5.4
7	2.8	4.9
8	3.3	5.8
9	3.8	6.7
10	26.1	45.4
Mean Number of Months of Eligibility	4.1	7.1
SD	4.3	3.3
Sample Size	**2,104**	**1,210**

SOURCE: Second analysis file from combined 1990 and 1991 SIPP panels. The file includes all women with a child less than one year old in any wave of SIPP.

NOTES: Sample is limited to women with income-eligibility data for all nine months of pregnancy and the birth month.
Women who were income eligible in the first month of pregnancy may also have been income eligible before pregnancy.
This table is an alternate version of Table IV.2. The only change is that a pregnant woman is counted as two people in determining income eligibility, as in current WIC program rules.

n.a. = not applicable; SD = standard deviation.

TABLE G.2

INCOME ELIGIBILITY FOR WIC DURING THE YEAR AFTER A BIRTH

	Percentage
Among Women Not Income Eligible in Quarter Before Birth (1,546), Percent that Become Eligible in First Quarter After Birth	12.7
Among Women Income Eligible in First Quarter After Birth (1,227), Percent not Income Eligible in Quarter Before Birth	16.0
Sample Size (universe = women with valid data for all three months before and all three months after birth)	**2,671**
Of Women Ever Income Eligible After Birth (1,063), Percent Who First Become Eligible in:	
First quarter after birth	83.3
Second quarter after birth	7.3
Third quarter after birth	5.0
Fourth quarter after birth	4.3
Percent of Women Ever Income Eligible After Birth (1,063) Who Lose Eligibility at Some Point After Birth	28.1
Of Women Income Eligible in First Quarter After Birth (886), Percent Who First Become Ineligible	
Second quarter after birth	13.3
Third quarter after birth	7.9
Fourth quarter after birth	5.5
Sample Size (universe = women with valid data for the entire year after birth)	**1,973**

SOURCE: Second analysis file from combined 1990 and 1991 SIPP panels. Sample is all women with a child less than one year old in any wave of SIPP.

NOTE: This table is an alternate version of Table IV.3. The only change is that a pregnant woman is counted as two people in determining income eligibility, as in current WIC program rules.

TABLE G.3

CHARACTERISTICS OF INCOME-ELIGIBLE WOMEN AND THEIR FAMILIES, BY QUARTER

Characteristics	Before Pregnancy	Pregnancy: First Trimester	Pregnancy: Second Trimester	Pregnancy: Third Trimester	After Birth: 0-2 Months	After Birth: 3-5 Months	After Birth: 6-8 Months	After Birth: 9-11 Months
Age of Mother (Years)								
Under 20	25.0	22.5	20.5	18.6	16.5	17.0	14.9	12.8
20-24	29.3	31.2	32.2	32.0	32.5	32.6	33.3	32.8
25-29	26.3	25.0	25.6	26.2	27.9	26.7	26.0	26.5
30-34	14.3	16.4	16.7	17.4	16.3	16.2	18.4	18.9
35+	5.1	4.9	5.0	5.8	6.9	7.5	7.4	9.0
Mean	24.2	24.5	24.7	25.0	25.3	25.3	25.5	26.0
Race/Ethnicity								
American Indian	2.4	2.0	2.1	2.0	1.6	1.6	1.8	1.4
Asian	3.4	2.9	3.1	3.2	3.1	3.4	3.9	4.2
Black, non-Hispanic	22.3	20.7	20.0	19.7	18.2	19.1	20.0	20.3
Hispanic	21.6	20.4	21.4	22.3	22.8	22.8	21.9	21.9
White, non-Hispanic	50.3	54.0	53.4	52.8	54.2	53.1	52.4	52.2
Education of Mother								
Less than high school	45.8	40.3	39.8	39.6	37.8	38.0	38.8	38.3
High school or GED	39.3	40.0	40.9	41.4	40.8	41.5	41.8	42.5
1-3 years of college	11.2	14.8	15.2	15.1	16.3	15.7	14.5	14.7
4+ years of college	3.7	4.9	4.1	3.8	5.1	4.8	5.0	4.5
Family Composition								
Two parents	39.3	45.9	49.2	51.9	57.4	56.1	55.2	55.6
Mother only	41.8	37.1	34.4	32.7	29.1	30.2	31.5	31.3
Mother and other adult(s)	17.8	16.1	15.9	14.8	12.8	12.8	12.4	12.7
Other	1.1	0.9	0.5	0.6	0.6	0.9	0.8	0.4

TABLE G.3 *(continued)*

Characteristics	Before Pregnancy	Pregnancy: First Trimester	Pregnancy: Second Trimester	Pregnancy: Third Trimester	After Birth: 0-2 Months	After Birth: 3-5 Months	After Birth: 6-8 Months	After Birth: 9-11 Months
Number of Children Under Age 18 (Counts Do Not Include Infant in Postbirth Quarters)								
None	15.7	19.6	21.4	21.5	26.0	24.8	25.1	25.1
1	30.0	31.0	29.4	32.3	32.7	32.7	34.2	32.2
2	27.1	25.4	24.6	22.7	21.6	20.8	20.2	21.1
3+	27.2	24.1	24.5	23.6	19.7	21.7	20.6	21.7
Mean	2.0	1.8	1.7	1.7	1.5	1.6	1.5	1.6
Number of Children Age 4 and Under (Counts Do Not Include Infant in Postbirth Quarters)								
None	41.2	43.2	43.9	45.0	48.2	48.7	48.3	50.1
1	36.2	38.2	38.3	37.6	36.9	37.3	38.1	36.3
2	15.7	13.7	13.1	12.6	11.9	11.1	11.5	11.5
3+	6.9	4.9	4.7	4.8	3.0	2.9	2.1	2.1
Mean	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7
Mother Employed (Based on Employment Codes)	40.4	44.9	35.9	29.1	28.6	28.1	31.2	30.4
Mother Employed (Based on Earnings)	38.5	43.7	34.3	27.6	26.2	25.5	29.3	27.7
Mother's Hours Worked (Those Employed Based on Earnings)								
Less than 35	48.4	45.3	48.3	49.2	44.5	52.6	50.0	49.2
35+	51.6	54.7	51.7	50.8	55.5	47.4	50.0	50.8
Mean (in months worked)	31.4	32.2	32.1	32.1	32.1	30.7	31.2	32.2
Mother's Earnings (Average Monthly over All Months in Quarter; of Those with Earnings)								
Mean	554	603	614	588	430	562	547	588
SD	357	387	405	411	372	428	404	414
Mother's Earnings (Average Monthly over Months with Income; of Those with Earnings)								
Mean	597	653	697	690	649	645	639	668
SD	341	367	414	444	457	435	419	417
Family Contains Other Adults with Earned Income	44.9	54.9	55.8	57.9	60.5	57.2	55.8	56.1

TABLE G.3 *(continued)*

Characteristics	Before Pregnancy	Pregnancy: First Trimester	Pregnancy: Second Trimester	Pregnancy: Third Trimester	After Birth: 0-2 Months	After Birth: 3-5 Months	After Birth: 6-8 Months	After Birth: 9-11 Months
Family with the Following Types of Income or Benefits:								
Earnings	67.1	76.6	72.6	70.6	69.8	67.7	68.4	68.9
Social security	8.3	7.3	7.6	7.8	6.9	7.0	7.3	7.4
Railroad Retirement	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Veterans' benefits	0.6	0.7	0.6	0.7	0.6	0.9	0.9	0.8
Unemployment compensation	6.1	7.7	8.5	8.0	6.8	7.5	7.4	6.9
Employment sickness benefits	0.2	0.2	0.2	0.2	0.7	0.2	0.1	0.1
Aid to Families With Dependent Children	28.2	24.2	24.8	27.2	28.7	31.5	32.1	31.7
Supplemental Security Income	6.1	5.2	4.9	5.2	5.2	5.6	5.7	5.1
General Assistance	2.9	2.2	2.8	2.9	2.6	2.6	2.8	2.5
Other Welfare	1.4	1.3	1.4	1.1	1.1	1.1	1.3	1.2
WIC Benefits	20.5	21.5	29.1	37.9	47.6	53.5	50.9	47.4
Food Stamps	39.6	35.3	38.2	41.1	42.5	45.1	45.8	45.3
Child Support	10.4	10.6	8.9	8.0	8.0	9.1	9.0	9.7
Alimony	0.2	0.1	0.2	0.2	0.3	0.4	0.1	0.1
Family Covered by Private Health Insurance	35.7	42.4	40.6	40.0	43.1	38.4	36.9	37.5
Sample Size	**624**	**859**	**1,051**	**1,231**	**1,398**	**1,367**	**1,449**	**1,510**

SOURCE: Second analysis file from combined 1990 and 1991 SIPP panels. The file includes all women with a child less than one year old in any wav of SIPP.

NOTES: This table is an alternate version of Table IV.4. The only change is that a pregnant woman is counted as two people in determining income eligibility, as in current WIC program rules.
The sample for each quarter includes women who are income eligible on the basis of their family income for that quarter. Income eligibility is defined using WIC poverty guidelines.

SD = standard deviation.

APPENDIX H

CASES WITH MORE THAN ONE BIRTH IN THE SECOND ANALYSIS DATABASE

The second analysis database, used in Chapters IV and V, is a sample of births observed during or just before the SIPP panel; in general, women who have more than one birth during this period contribute more than one observation (one per birth).[1] The analysis for each quarter is based on all observations with data for that quarter, and thus the composition of the sample changes over time. Changes in sample composition may distort trends for two reasons: (1) women with more than one birth contribute more postbirth data, on average, than prebirth data, which may distort trends related to age; and (2) sample attrition may affect data for some quarters more than others. This appendix first explains why the sample composition changes and why it may distort trends. It then presents results for selected tables for an alternative sample, in which women with more than one birth contribute data for only one of these births, selected at random.

In general, the sample is more likely to contain postbirth data because the SIPP reveals a birth just before the panel begins (by the presence of a child under one year old) but cannot correspondingly reveal a birth just after the panel ends. Most of the analyses presented in Chapters IV and V use, for each quarter, the sample of all women with data for that quarter. Women may provide anywhere from one to eight quarters of data, depending on the timing of their birth relative to the SIPP panel. The sample size for each successive quarter is larger than for the preceding quarter, resulting in a sample for the eighth quarter that is 75 percent larger than the sample for the first quarter.[2] The samples from the quarters after birth are larger because pregnant and postpartum women were identified by the presence of an infant; thus, the samples of data for the period after birth include women who gave birth right before the panel began, but the samples of data for the period before the birth cannot correspondingly include data for women who gave birth just after the panel ended.

Larger samples after the birth do not in themselves imply that the samples from after the birth represent systematically different populations than the samples from before the birth. However, two factors may lead to such biases: (1) sample attrition that is correlated with income, and (2) the likelihood of

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[1]The only exception is when two births are less than nine months apart (but not zero months)--then only the first birth was included. Women who have twins (or triplets, etc.) contribute only one record, but the family size is increased by the number of children born.

[2]The sample size for all women for quarter 8 is 3,457, versus 1,974 for quarter 1 (see Table IV.5).

more postbirth data for women with more than one birth during the panel. Although we cannot measure the role of sample attrition, we believe it probably has modest effects on trends for two reasons: (1) although data are lost for women who drop out of the sample, other women enter the sample over time; and (2) the fact that data are missing for *all* women with births just after the panel ends mitigates the effects of attrition.

Biases from different levels of missing data on births to the same mother also could be present. Because the Survey of Income and Program Participation (SIPP) covers a two-and-one-half year period, some women (13 percent) give birth more than once during the panel. The sample used in Chapters IV and V contains a separate record for each birth just before or during the SIPP panel. In other words, the same woman can be represented in the sample more than once if she experiences more than one birth just before or during the panel. The records for second or later births make up just over 12 percent of the 5,184 records in the sample used for the analyses presented in Chapters IV and V.

For women who appear in the sample only once, the prebirth data they provide (if any) will, by definition, be "younger than" their postbirth data. This sample appears to age roughly linearly throughout the eight quarters of analysis. In contrast, average age for the women that appear in the sample more than once may not increase linearly. Some women with more than one birth contribute postbirth data that will be "younger" than their prebirth data. Consider the following example: a woman gives birth just before the start of the panel and then gives birth again 18 months into the panel. For the first birth, the woman only provides postbirth data. For the second birth, the woman provides prebirth and postbirth data. As a result, this woman provides the sample with two sets of postbirth data and one set of prebirth data; one set of the postbirth data is younger than the prebirth data, while the other set of the postbirth data is older than the prebirth data. Trends for the overall sample may be distorted because these women contribute postbirth data that are younger, on average, than their prebirth data. Thus, for example, employment rates after birth may appear to drop more than they would otherwise if younger women are less likely to work after a birth.[3]

In addition to the problem of differential aging for data from women with a single birth versus data from women with more than one birth, bias may be introduced if women with more than one observed birth within a two-and-one-half year period are systematically different from other women who give birth. In general, women with short intervals (less than 24 months) between births are more likely to have low incomes (see, for example, Gordon and

[3]It is also possible that a woman could contribute data for two pregnancies and one postbirth period (for example, if the second birth occurred just before the end of the panel). The fact that we do not observe pregnancies at the end of the panel, however, implies this group must be smaller than the group with more postbirth data.

Nelson 1995). If our sample is defined to be a sample of births, not of women, such differences do not in themselves bias trends. However, the different rates of missing data over time for the two groups may bias trends. Furthermore, such differences suggest the results may be sensitive to whether the sample is defined to include all births or just one (randomly selected) birth per woman.

To determine the effect of multiple births on the analyses presented in Chapter IV and the last section of Chapter V, Tables IV.1 and IV.5 were reproduced with the sample modified so that women with more than one birth contribute only the record for one of their births. The birth that is included was randomly selected. Although average income by quarter for the modified sample is slightly higher than for the original sample (consistent with studies indicating that women with short birth intervals tend to be more disadvantaged), the overall trends in income and income eligibility are scarcely changed at all (Table H.1). Similarly, the revised sample is slightly less disadvantaged in a range of demographic characteristics, but the differences are generally within one percentage point, and the overall trends in these characteristics are not changed (Table H.2).

Thus, use of one or more records for women who give birth more than once does not appear to affect the conclusions reached in Chapter IV or the last section of Chapter V.

TABLE H.1

INCOME PATTERNS BEFORE PREGNANCY, DURING PREGNANCY, AND DURING THE YEAR AFTER BIRTH

Characteristics	Before Pregnancy	Pregnancy: First Trimester	Pregnancy: Second Trimester	Pregnancy: Third Trimester	After-Birth: 0-2 Months	After-Birth: 3-5 Months	After-Birth: 6-8 Months	After-Birth: 9-11 Months
Quarterly Family Income (Annualized)								
Under $5,000	6.2	5.5	6.9	7.7	8.3	7.6	7.9	7.6
$5,000 - $9,999	7.1	8.3	8.6	9.0	8.8	9.1	8.7	9.1
$10,000 - $14,000	7.5	7.4	7.4	7.9	9.2	8.4	8.5	8.1
$15,000 - $29,999	22.5	23.1	23.1	23.8	26.5	25.0	25.4	24.7
$30,000 - $49,999	28.9	28.0	27.2	27.2	27.1	28.7	26.6	26.3
$50,000+	27.8	27.7	26.9	24.4	20.3	21.2	22.9	24.2
Mean	39,123	38,507	37,870	36,466	33,747	34,437	35,023	35,813
SD	29,365	28,099	28,893	28,801	26,794	26,610	27,958	27,757
Monthly Income as Percentage of Census Poverty Thresholds (Averaged)								
Distribution:								
Under 50 Percent	7.4	8.9	10.7	11.6	11.6	10.9	10.9	10.5
50-<100	7.8	11.0	11.8	12.3	13.7	12.8	13.6	14.2
100-<130	5.5	7.3	6.0	6.9	7.6	7.9	7.7	6.2
130-<185	11.4	12.8	12.4	12.7	14.9	13.6	13.4	13.6
185-<250	11.7	13.7	14.6	14.3	13.4	15.2	14.6	14.5
250+	56.1	46.4	44.4	42.3	38.6	39.6	39.7	40.9
Cumulative Distribution								
<50 Percent	7.4	8.9	10.7	11.6	11.6	10.9	10.9	10.6
<100	15.3	19.8	22.6	23.8	25.4	23.6	24.5	24.7
<130	20.8	27.1	28.6	30.7	33.0	31.6	32.3	31.0
<185	32.2	39.9	41.0	43.4	47.9	45.2	45.7	44.5
<250	43.9	53.6	55.6	57.7	61.4	60.4	60.3	59.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	350	280	274	262	245	249	251	255
SD	279	220	225	222	208	205	209	207
Monthly Income as Percentage of WIC Eligibility Guidelines (Averaged)								
Distribution:								
Under 50 Percent	7.0	8.0	9.6	10.6	11.1	10.4	10.3	9.9
50-<100	7.5	11.0	11.5	12.5	13.1	12.4	13.0	13.5
100-<130	5.0	6.8	6.2	5.9	6.8	6.9	7.3	6.3
130-<185	10.3	11.8	11.3	11.9	14.5	13.3	12.3	12.8
185-<250	11.2	13.5	14.3	14.4	13.5	15.0	15.1	14.0
250+	59.0	48.9	47.1	44.7	41.0	41.9	42.0	43.5
Cumulative Distribution								
<50 Percent	7.0	8.0	9.6	10.6	11.1	10.5	10.3	9.9
<100	14.5	19.0	21.1	23.1	24.2	22.9	23.3	23.4
<130	19.5	25.7	27.3	29.1	31.0	29.8	30.6	29.7
<185	29.8	37.6	38.5	41.0	45.5	43.0	42.9	42.5
<250	41.0	51.1	52.9	55.3	59.0	58.1	58.0	56.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	367	292	286	273	254	258	261	266
SD	293	226	230	227	212	209	215	213
Sample Size	**1,710**	**1,908**	**2,288**	**2,554**	**2,665**	**2,728**	**2,926**	**3,053**

SOURCE: Second analysis file from combined 1990 and 1991 SIPP panels. The file includes all women with a child less than one year old in any wave of SIPP.

NOTES: In each quarter, all women with valid data for that quarter are included.
For women with multiple births within the panel, the record for one birth was randomly selected and included in the sample for this table.
SD = Standard deviation.

TABLE H.2

CHARACTERISTICS OF WOMEN WHO GIVE BIRTH, BY QUARTER

Characteristics	Before Pregnancy	Pregnancy: First Trimester	Pregnancy: Second Trimester	Pregnancy: Third Trimester	After Birth: 0-2 Months	After Birth: 3-5 Months	After Birth: 6-8 Months	After Birth: 9-11 Months
Age of Mother (Years)								
Under 20	13.4	13.1	11.8	11.4	10.9	10.7	9.7	8.0
20-24	24.2	24.0	23.5	23.8	23.2	23.1	22.9	23.5
25-29	33.2	32.4	33.2	32.0	31.6	31.4	30.8	30.2
30-34	22.0	23.0	23.3	24.2	24.8	24.1	24.9	25.3
35+	7.3	7.5	8.2	8.6	9.5	10.7	11.7	13.1
Mean	26.3	26.4	26.7	26.8	27.0	27.1	27.4	27.7
Race/Ethnicity								
American Indian	1.0	0.9	1.0	1.1	1.0	0.9	1.0	0.8
Asian	3.5	3.2	3.5	3.5	3.5	3.6	3.8	4.0
Black, non-Hispanic	11.6	11.5	11.5	11.7	11.6	12.3	12.7	13.1
Hispanic	13.4	13.9	14.5	14.9	15.6	15.7	15.3	15.0
White, non-Hispanic	70.5	70.4	69.5	68.8	68.4	67.6	67.2	67.1
Education of Mother								
Less than high school	20.5	20.3	20.2	20.8	21.8	21.1	21.6	21.0
High school or GED	35.4	35.7	36.1	36.5	36.4	37.3	37.6	38.0
1-3 years of college	21.1	21.6	22.2	22.1	21.6	21.7	21.4	21.1
4+ years of college	23.0	22.3	21.5	20.6	20.2	19.9	19.4	19.9
Family Composition								
Two parents	68.1	69.9	72.4	73.2	74.9	75.2	74.1	74.0
Mother only	17.5	16.8	15.5	15.2	14.4	14.2	15.0	14.7
Mother and other adult(s)	14.0	12.9	11.9	11.3	10.4	10.2	10.5	11.2
Other	0.4	0.4	0.2	0.2	0.3	0.4	0.4	0.2

TABLE H.2 *(continued)*

Characteristics	Before Pregnancy	Pregnancy: First Trimester	Pregnancy: Second Trimester	Pregnancy: Third Trimester	After Birth: 0-2 Months	After Birth: 3-5 Months	After Birth: 6-8 Months	After Birth: 9-11 Months
Number of Children Under Age 18 (Counts Do Not Include Infant in Post-Birth Quarters)								
None	36.7	36.6	36.8	36.0	37.5	36.3	35.0	34.3
1	34.5	35.0	33.8	34.5	34.3	34.9	36.0	35.6
2	17.7	17.2	17.8	17.6	17.1	16.9	17.5	18.0
3+	11.2	11.2	11.5	11.9	11.1	12.0	11.6	12.1
Mean	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2
Number of Children Age 4 and Under (Counts Do Not Include Infant in Post-Birth Quarters)								
None	57.6	57.9	57.8	57.4	58.5	58.9	57.9	58.5
1	33.3	33.8	34.2	34.0	33.7	33.6	34.8	34.1
2	7.4	7.0	6.8	7.0	6.7	6.6	6.6	6.6
3+	1.6	1.4	1.2	1.6	1.1	0.9	0.8	0.8
Mean	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Mother Employed (Based on Employment Codes)	68.4	68.3	62.2	55.6	47.5	47.8	51.1	51.6
Mother Employed (Based on Earnings)	66.7	67.1	60.9	54.3	44.0	45.5	49.4	49.8
Mother's Hours Worked (of Those Employed Based on Earnings)								
Less than 35	27.7	29.5	30.2	30.8	32.7	37.5	38.2	37.6
35+	72.3	70.5	69.8	69.2	67.3	62.5	61.8	62.4
Mean (in months worked)	36.1	35.6	35.7	35.1	34.4	33.7	33.5	33.8
Mother's Earnings (Monthly over All Months in Quarter; of Those with Earnings)								
Mean	1,428	1,370	1,421	1,390	1,113	1,279	1,273	1,305
SD	1,063	1,021	1,094	1,125	1,104	1,045	1,096	1,087
Mother's Earnings (Monthly over Months with Income; of Those with Earnings)								
Mean	1,447	1,413	1,472	1,469	1,334	1,374	1,335	1,360
SD	1,050	1,020	1,099	1,107	1,100	1,084	1,093	1,087
Family Contains Other Adults with Earned Income	76.8	79.7	80.1	80.5	80.8	80.2	79.1	79.1

TABLE H.2 *(continued)*

Characteristics	Before Pregnancy	Pregnancy: First Trimester	Pregnancy: Second Trimester	Pregnancy: Third Trimester	After Birth: 0-2 Months	After Birth: 3-5 Months	After Birth: 6-8 Months	After Birth: 9-11 Months
Family with the Following Types of Income or Benefits:								
Earnings	90.5	92.0	89.9	88.2	86.6	86.4	86.6	87.2
Social security	4.9	5.0	5.2	5.0	5.3	5.3	5.5	5.4
Railroad retirement	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.1
Veterans benefits	0.9	0.7	0.7	0.9	0.9	1.0	1.0	1.0
Unemployment compensation	5.1	6.2	6.7	6.7	6.6	6.5	6.3	6.1
Employment sickness benefits	0.4	0.3	0.4	0.8	2.6	0.4	0.3	0.4
Aid to Families with Dependent Children	8.0	8.5	9.3	11.4	14.1	15.0	15.2	15.5
Supplemental Security Income	2.2	2.4	2.3	2.6	2.8	3.0	3.2	2.8
General Assistance	1.1	1.1	1.5	1.7	1.5	1.4	1.3	1.3
Other Welfare	0.8	0.8	0.8	0.8	1.0	0.8	0.9	0.9
WIC Benefits	4.8	7.1	11.6	17.6	25.1	27.7	27.0	24.9
Food Stamps	11.8	13.1	14.7	17.0	19.8	20.7	21.0	21.1
Child Support	7.1	7.1	6.2	6.2	6.5	6.7	7.2	7.3
Alimony	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2
Family Covered by Private Health Insurance	75.1	75.2	74.1	72.3	71.2	69.5	69.0	69.0
Sample Size	**1,710**	**1,908**	**2,288**	**2,554**	**2,665**	**2,728**	**2,926**	**3,053**

SOURCE: Second analysis file from combined 1990 and 1991 SIPP panels. File includes all women with a child less than one year old in any wave of SIPP.

NOTES: For women with multiple births within the panel, the record for one birth was randomly selected and included in the sample for this table.
The sample for each quarter includes all women with valid data for that quarter.
SD = Standard deviation.

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