

The Impact of Child SSI Enrollment: Evidence from the Survey of Income and Program Participation*

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Abstract: The federal Supplemental Security Income (SSI) program has become a primary source of cash assistance for low-income families with children in the United States, with 1.04 million children currently receiving SSI benefits and 6 percent of children in a household with some SSI income. In this paper we use data from the Survey of Income and Program Participation (SIPP) to investigate the impact that child SSI enrollment has on household outcomes such as poverty, household earnings, and health insurance coverage. The longitudinal nature of the SIPP allows us to control for unobserved differences across households by measuring outcomes in the same household in the months leading up to and immediately following a child's first enrollment in SSI. Our regression analyses demonstrate that for every \$100 increase in household SSI income, total household income increases by roughly \$72, reflecting some modest offset of other transfer income and conditional household earnings. Our analyses further demonstrate that child SSI enrollment is associated with a statistically significant and persistent reduction in the probability that a child lives in poverty of roughly 11 percentage points. Additional analyses suggest that program enrollment has virtually no impact on health insurance coverage because most new SSI recipients have health insurance from Medicaid or another source at the time of enrollment.

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I. Introduction

The federal Supplemental Security Income (SSI) program provides cash assistance to more than 7.1 million aged, blind, and disabled persons in the U.S. who are below federally mandated income and asset limits. In terms of total spending it is now second only to Medicaid among means-tested programs with more than \$38 billion in 2004 expenditures. The number of individuals receiving SSI benefits has grown substantially during the past fifteen years, from 4.59 million in December of 1989 to 7.14 million by November of 2005. The increase in SSI receipt over this period has been especially rapid among children under the age of 18, with their ranks increasing from 0.26 to 1.04 million. The result of this growth, along with an increase in SSI enrollment among adults with children, is that 6 percent of children now reside in a household with SSI income. This is more than double the corresponding share in 1990.

Our main goal in this paper is to investigate the impact of a child's enrollment in SSI on key outcome measures such as poverty, parental earnings, and health insurance coverage. Identification of a causal impact of program participation is inherently difficult for at least three reasons. First, as with other means-tested programs, a family's eligibility for the program is determined in part by a family's economic circumstance. Cross-sectional comparisons of households with and without SSI benefits would therefore potentially be biased by some amount of reverse causation. Furthermore, a child must have a medically determinable physical or mental impairment in order to qualify for SSI benefits. Having a child with a disability may exert an independent effect on a parent's optimal labor supply or other decisions, making it difficult to disentangle the effect of the program from this potentially confounding factor. And finally, SSI is a federal program that exhibits almost no variation across states or other geographic areas. Thus whereas previous research has exploited cross-state variation in benefit amounts and eligibility criteria to identify the effect of other means-tested programs such as AFDC, Medicaid, and food stamps, such an empirical strategy is unlikely to succeed in this context.¹

¹ Some states do supplement the federal SSI benefit. But these supplements are quite small for children and accounted for just 3 percent of all SSI benefits paid during the 2005 calendar year. The corresponding share for adults was 13 percent, and thus the supplements are a more useful source of variation in program incentives for this group. See Neumark and Powers (1998, 2000) for analyses that exploit the cross-state heterogeneity in state

To surmount these obstacles to identification, we exploit longitudinal data from the Survey of Income and Program Participation (SIPP) that enables us to observe household outcomes in the months leading up to and immediately following a child's first enrollment in the SSI program. This strategy allows us to control for unobserved, time-invariant differences across households that might bias cross-sectional estimates. The key identifying assumption of this approach is that the precise timing of the award of SSI benefits to the child is not correlated with other changes that influence the household outcome being studied. Note that this strategy would not be appropriate for studying the causal effect of most other government expenditure programs, such as unemployment insurance, TANF, or social security, as enrollment in those programs would often be precipitated by a discrete change in the employment status or health of adults in the household.

But in the case of child SSI enrollment, this strategy seems appropriate for two reasons. First, the vast majority of children awarded SSI benefits have a chronic rather than an acute condition.² Thus it is not the case that most children apply for the program after a discrete change in health status, which might itself influence parental labor supply or other outcome variables of interest. Instead, children are likely to apply after learning about the program from a welfare caseworker, a physician, an advocacy group, or a school counselor (Bound et al, 1998; Garrett and Glied, 2000; Kubik, 1999). Second, there is typically a substantial lag between the initial application for SSI benefits and the eventual award (if one is made), with this lag averaging 4.3 months for awardees under the age of 18.³ This lag occurs both because the Social Security Administration (SSA) must determine a child's eligibility for the program and because the state Disability Determination Service (DDS) must decide whether the child has a "medically

supplements for adult SSI recipients to identify the impact of the program on the labor supply and savings of near elderly individuals.

² For example, in 2003 approximately 67 percent of children awarded SSI benefits had a mental disorder as their primary diagnosis and fewer than two percent qualified because of an injury or a disease of the circulatory system.

³ The length of the time lag will depend both on the SSA and on the state DDS. As described on the SSA website, after a child disability report is formally submitted to SSA, "We review it to make sure all of the information is complete. We may contact you for missing or unclear information; We will contact you to complete a formal application for benefits, if you haven't already done one; We send the child's forms to the State office that determines if the child is disabled under Social Security law; The State office requests medical records from the hospitals, doctors, and other treatment sources and information from the child's teachers, schools, and other people whom you listed as having information about the child's illnesses, injuries or conditions; The State office then reviews all the information it obtains."

determinable physical or mental impairment or combination of impairments that causes marked and severe functional limitations" (SSA, 1998).

One potential concern with this approach is that a family might apply for child SSI benefits because of a change in circumstances. For example, a parent might apply for the program after losing his or her job or in response to a decline in the child's health. Failing to account for this could lead to a biased estimate of the impact of SSI enrollment. But because of the longitudinal nature of our data, we can investigate whether there are changes in outcome variables of interest such as earnings, poverty status, and health insurance coverage in the months leading up to the first receipt of SSI benefits and thus avoid erroneously assigning a causal interpretation to any observed change in outcomes.⁴

Previous work on child SSI participation has documented the shifting of children from the Aid to Families with Dependent Children (AFDC) program to the SSI program during the 1990s (Kubik 1999, 2003; Garrett and Glied, 2000; Schmidt and Sevak, 2004). The only paper of which we are aware that investigates the relationship between child SSI participation and individual-level outcomes other than program participation is Kubik (1999). Kubik exploits the variation across states in the potential financial gain to a family from moving a child from AFDC to SSI. Using data from the National Health Interview Survey (NHIS), he documents that in the four years following the 1990 liberalization, female-headed households in states with higher potential SSI gains were more likely to identify that their child suffered from a health impairment (in particular a mental health impairment), to take their child to a doctor, and to report that their child needs special education.⁵

This paper builds on the previous literature by asking how enrollment of a child in SSI affects household-level economic outcomes. We begin our empirical analysis with an investigation of the

⁴ An alternative approach would be to instrument for SSI benefit receipt with the level of state supplementation of the federal SSI benefit. Neumark and Powers (1998, 2000) implement such a strategy in their studies of the effect of SSI participation on pre-retirement savings and labor supply among the near elderly. However, as noted above, this is not as appropriate in the context of child SSI participation because state SSI supplements for children are very small and vary little over time. The authors' attempts at such an IV approach produced estimates that were very imprecisely estimated.

⁵ Using data from the March CPS, Kubik also finds that a family's receipt of SSI benefits has a negative effect on the probability that the head of the family works. But as he points out, it is not possible to separately identify the effect of child and adult SSI participation, which is potentially problematic as we discuss below.

demographic and institutional determinants of SSI child participation using data for all households with children from the 1992, 1993, 1996, and 2001 SIPP surveys. This presents a picture of what types of households are enrolling children in the SSI program and how they differ from other households without a child on the program.

The remainder of the paper focuses on the estimation of the impact of child SSI enrollment on a number of household outcomes. Our first set of findings demonstrates that the enrollment of a child on SSI leads to an increase in total household unearned income of \$1,650 defined over a four-month period, compared to an increase in total SSI income of \$1,747. (Outcomes are defined in the SIPP over a survey “wave”, which constitutes a four-month period.) These estimates imply that the increase in SSI income greatly exceeds any offsetting reduction in transfer income from other programs such as TANF and food stamps. Looking at household earnings, we find no statistically significant changes in the level of earnings, the probability of positive household earnings, or log earnings conditional on positive earnings. However, the pattern of coefficients and the results for alternate estimation samples, suggests that there might be some decrease in conditional earnings on the order of 5 to 10 percent. Total household income increases by an average of approximately 22 percent after a child enrolls in SSI.

Our next set of findings demonstrates that the enrollment of a child on SSI leads to a statistically significant, substantial, and persistent reduction in the probability that a household lives in poverty. We find a statistically significant reduction of 10.8 percentage points in the probability that a household is in poverty following enrollment of a child in SSI. This stems in large part from an effect on deep poverty, which we define to be less than 50 percent of the poverty line. Because the typical child receiving SSI has one or more siblings, our estimates suggest an even larger effect on the number of children in poverty. The observed increase in family income need not have implied a reduction in poverty rates for two reasons. First, although SSI is a means-tested program, a child can still qualify for the program even if his/her family income is substantially above the poverty line. For example, a family with one parent and two children could have earnings of more than \$30,000 per year and yet still receive SSI benefits. Second, it is an empirical question as to whether the increase in transfer income associated with SSI participation,

net of any offsetting decrease in earned or other income, is sufficient to lift a family out of poverty.

Our final set of estimates focuses on the impact of SSI participation on the health insurance coverage of children. Because SSI recipients are immediately eligible for health insurance through the Medicaid program in most states, it is plausible that child SSI enrollment leads to an increase in health insurance coverage among children. We find little evidence to support this conjecture. While Medicaid coverage does increase substantially among children following SSI enrollment, most of the children who were not already on Medicaid had private health insurance just prior to enrollment in SSI. Taken together, our results suggest that the growth of SSI enrollment has substantially lowered poverty rates among affected children but that it has had little impact on labor supply or health insurance coverage.

II. Background

A. The Growth in SSI Enrollment among Children

The first cash payments from the Supplemental Security Income program were disbursed in January of 1974, when 51 state-level programs that had assisted low-income aged, blind, and disabled adults were consolidated into one federal program.⁶ In its first year, more than 60 percent of the 4.0 million SSI recipients were above the age of 65 and less than two percent were under the age of 18. Thirty years later in November of 2005, there were approximately 2.0 million elderly adults, 4.1 million aged 18 to 64, and more than 1.0 million children receiving SSI benefits. The growth in SSI enrollment has made it much more important as a source of cash assistance for low-income families with children. In 1989 there were 15.7 times more families on AFDC than with a child on SSI.⁷ But by 2004 that ratio had fallen to just 2.2. As we demonstrate below, if one accounts for adult SSI enrollment, then the receipt of SSI benefits is now more common than TANF receipt among households with children.

Much of the increase in child SSI participation was precipitated by the February 1990 Supreme

⁶ See Daly and Burkhauser (2003) for more details on the SSI program, its history, and a review of the SSI literature.

⁷ According to tabulations performed by Paul Davies at the Social Security Administration at the request of the authors, approximately 19% of child SSI recipients have a sibling on the program. We multiply the number of children on SSI by $(0.81 + (0.19 / 2))$ to approximate the number of families with one or more children on SSI.

Court decision in *Sullivan v. Zebley*, which had the effect of liberalizing the medical eligibility criteria for children to qualify for SSI. In the seven years following that decision, the number of children on SSI increased by 260 percent to more than 955,000. This represented an increase from 0.4 to 1.4 percent of all children between the ages of 0 and 17.⁸ This period of rapid growth represented a sharp break in the slight upward trend prior to *Zebley*: during the four years from 1985 to 1989 the number of children on SSI increased by only 37,500. Figure 1 plots the percentage of children on SSI from 1985 to 2005 and Figure 2 plots the percentage of children applying for or awarded SSI through 2004. As revealed by this latter figure, there was a noticeable increase in applications and awards after the *Zebley* ruling, with these two series peaking in 1994 and 1993, respectively.

Previous research has demonstrated that in the years following this liberalization of the medical eligibility criteria for SSI enrollment by children, there was substantial shifting of children from the AFDC program to the SSI program. In states where the child SSI benefit exceeded the marginal AFDC benefit associated with that child, a family receiving AFDC income had an incentive to move an eligible child from AFDC to SSI, as a child could not legally receive benefits from both programs. Furthermore, as AFDC was jointly funded by states and the federal government and SSI is federally funded (though some states choose to supplement state benefits) it was also in the states' financial interest to move eligible children from AFDC to SSI. Kubik (1999, 2003) and Garrett and Glied (2000) provide evidence that both individuals and states responded to these incentives and that substantial shifting occurred. Schmidt and Sevak (2004) provide evidence that female-headed households in states aggressively pursuing welfare reform in more recent years were more likely to have SSI income.

The growth in SSI receipt after the *Zebley* decision was driven primarily by an increase in the number of children qualifying for the program because of a mental disorder. Press accounts and anecdotes of children being “coached” to display behavioral disorders in order to be determined medically eligible for SSI led to a concern that the disability standard for children had become too lenient. Perhaps partly in response to this concern, the 1996 Personal Responsibility and Work Opportunity Reconciliation

⁸ The fraction of children affected was even higher given that the average child SSI recipient has 1.4 siblings.

Act (PRWORA) legislation required SSA to use a stricter standard of disability for child SSI applicants and to reevaluate the eligibility status of almost one-third of recipients (Kubik, 1999).⁹ This put an end to the rapid growth in child SSI participation. Nearly 100,000 children were terminated from the rolls in 1997 (with most deemed "no longer disabled") because of this legislation and the number on SSI remained roughly constant during the subsequent three years. Notably, SSI receipt among children started to increase again in 2000, growing by more than 4 percent per year through November of 2005. As Figure 1 demonstrates, the fraction of children now receiving SSI is greater than it was before the 1997 tightening induced by PRWORA.

B. SSI Program Parameters and Rules

Eligibility requirements and federal payment standards for SSI are uniform nationwide, though states have the option to supplement the federal SSI payment. To be medically eligible for SSI, a child must have a medically determinable impairment and the impairment(s) must be severe. A severe impairment is defined by the SSA as one that is more than a slight abnormality or a combination of slight abnormalities that causes more than minimal functional limitations. The SSA process determines an impairment(s) to cause "marked and severe functional limitations if it meets or medically equals the severity of a set of criteria for an impairment in the [SSA] listings, or if it functionally equals the listings." Furthermore, this impairment(s) must be expected to last for at least 12 months or result in death. This medical determination is made by state Disability Determination Services offices.¹⁰

In 2005 the maximum federal SSI payment was \$579 monthly for an individual and in June of that year the average child SSI benefit was \$517. This number reflects an average federal payment of \$502. Though fifteen states supplement child SSI benefits, these supplements account for just three

⁹ The 1996 legislation created a separate definition of disability for children, thus eliminating the requirement that the child standard be of comparable severity to the adult standard. The law also eliminated references to maladaptive behaviors in the Listing of Impairments for children and discontinued the use of individualized functional assessments for children. PRWORA also made the eligibility criteria for legal immigrants and struck alcoholism and drug addiction from the list of diagnoses with which individuals could qualify for SSI. See Karoly, Klerman, and Rogowski (2004) for a more detailed discussion of PRWORA's effects on the SSI program.

¹⁰ In future work we hope to exploit variation across states and/or offices in the likelihood of a medical determination conditional upon application, but have not yet been able to obtain the necessary data.

percent of total SSI spending for children. Since 1975, the maximum federal SSI benefit has increased with the CPI each year to account for increases in the cost of living.

Adults are generally not eligible for SSI if they have assets in excess of \$2,000. Certain resources are excluded, most commonly a home, an automobile, household goods, and life insurance. For eligible adults, the federal SSI payment is based on the individual's countable income. The first \$20 of unearned or earned monthly income is excluded, as is the first \$65 of monthly earnings plus one-half of any earnings above \$65. In the case of a child SSI recipient, some of the income and assets of certain family members living in the same household are "deemed" to the recipient. Payments from AFDC/TANF to other household members are excluded from deeming, as are foster care payments, food stamps, and EITC benefits to anyone in the household. Household income that is used by another public assistance program to determine the payment amount to someone other than the SSI recipient is also excluded from deeming. There is also an allowance for each ineligible child as well as a parental living exclusion.

In the 2005 calendar year an eligible child in a one-parent family would receive the maximum SSI benefit with parental monthly earnings up to \$1,243 if there were no other children in the household, \$1,533 if there was one other child, and \$1,823 if two other children in the household.¹¹ These numbers illustrate that parents of children on SSI can have relatively high levels of earnings while still collecting the maximum SSI benefit for their child. The phase-out rate of benefits is 50 percent and thus a parent with two children (one of whom is on SSI) could earn up to \$2,691 per month (\$32,292 per year) before SSI benefits would reach zero. If instead the parent was the one on SSI, benefits would begin to phase out once the recipient's monthly earnings exceeded \$85. Thus labor supply incentives are quite different if a child rather than an adult is on SSI.

¹¹ As an example, consider a family in 2005 with two children and one parent that had only two sources of family income: an SSI payment to one child and \$1500 in monthly earnings. The SSA first deducts \$290 for the other child's monthly allowance, \$20 for the general income exclusion, and \$65 for the earnings exclusion. One-half of the remaining \$1125 in earnings is excluded, bringing deemed income to \$562.50. The parental living allowance of \$579 would then be subtracted, leaving zero income deemed to the child and thus he would qualify for the maximum benefit. If instead the family consisted only of the parent and eligible child, there would be no monthly allowance for another child. Thus \$128.50 would be deemed, resulting in an SSI payment of \$450.50.

III. Evidence from the SIPP on SSI benefit receipt

A. *The Growing Importance of SSI Relative to Welfare*

In this section we present information on household receipt of SSI and AFDC/TANF income based on data from the Survey of Income and Program Participation (SIPP). The SIPP is the primary source of publicly available data on participation in government expenditure programs¹² and is the only source of data that reliably distinguishes between child and adult SSI receipt.¹³ This is especially important for our analysis because the effect of the program on labor supply incentives is very different if a child rather than an adult is enrolled. The first SIPP survey was conducted in 1984 and additional surveys were launched in each year until 1993. More recent SIPP surveys have been conducted in 1996, 2001, and 2004.¹⁴ In every survey, households were interviewed three times a year and each wave of the survey collected information about the previous four months. In a typical survey approximately 38 percent of households had one or more children under the age of 18 in the first wave.

In Table 1 we summarize data on SSI and AFDC/TANF benefit receipt for all households with at least one child under the age of eighteen from the first wave of the 1990, 1993, 1996, 2001, and 2004 SIPP surveys. In all of our analyses we focus on households rather than families because of the likelihood that economic resources of one family in the household will to some extent spill over to the other. This data paints a stark picture of how the delivery of cash assistance to low-income families with children has changed over the past 15 years. As shown in the table, between 1990 and 1996, the percent of children in households with welfare income climbed on net from 10.3 to 11.4 percent, while the percent with SSI income climbed from 2.8 percent to 5.1 percent. By 2004, the percent of children in households with SSI

¹² One reason why the SIPP is considered to be the most reliable source of individual-level data on participation in government expenditure programs is that the survey is conducted three times per year and thus individuals need only recall their program participation during the preceding four months (Ham and Shore-Shepard, 2005).

¹³ Starting in 2001, Current Population Survey (CPS) data began recording whether SSI income received by a respondent was on behalf of a disabled or blind child. However, authors' tabulations of this data imply that the CPS substantially understates the fraction of SSI recipients who are children.

¹⁴ The first ten surveys each followed a nationally representative sample of approximately 20,000 households for three years, or nine four-month "waves". Thus during the period from 1984 to 1993 there were typically three surveys ongoing at any time. The 1996 survey followed a sample of 36,730 households for four years (12 waves) and the 2001 survey followed a sample of 35,106 households for three years (9 waves). As with most longitudinal surveys there is some attrition in the SIPP, though the Census adjusts person and household weights in each wave to account for differential attrition by observable characteristics.

income reached 6.0 percent, while the number in households with welfare income fell by more than half to 4.9 percent. It thus appears to be true that there are now more children living in households with SSI income than living in households with TANF income. These data also suggest that the recent growth in SSI has to some extent offset the dramatic decrease in welfare caseloads.

Table 1 also shows that in 1990, average AFDC benefits among AFDC families were 10 percent greater than average SSI benefits among SSI families (\$2,127 compared to \$1,939 during the four month period).¹⁵ By 2004, the reverse was true, with average SSI benefits approximately twice as large as TANF benefits among recipient households (\$2,342 versus \$1,178). This change was largely driven by the fact that SSI benefit amounts are inflation-adjusted whereas welfare benefits are not. Thus both because of the more generous benefits and because of the greater fraction of households enrolled, SSI has become a much larger source of cash assistance than TANF for households with children.

B. The Demographic Determinants of Household SSI Receipt

In this section we explore which observable household characteristics are related with program participation. We estimate probit models predicting receipt of child SSI benefits, and for the sake of comparison, adult SSI benefits and welfare (AFDC or TANF) benefits. Our sample consists of the 42,170 households with a child under the age 18 in the first wave of the pooled 1992, 1993, 1996, and 2001 SIPP surveys. We begin with the 1992 version of the SIPP because it is the first survey year to differentiate between child and adult SSI receipt.¹⁶ The public-use 2004 survey data does not include state identifiers so we do not include that data in our analyses. In this pooled sample, the percentage of households with a child receiving SSI benefits in one or more months is 1.6 percent; the percent receiving adult SSI is 2.6 percent, and the percent receiving welfare (AFDC or TANF) is 8.5 percent.

Our regression model is specified as follows, with j , k , and t indexing households, states, and

¹⁵ Dollar values cited here and elsewhere in the paper are inflation adjusted to 2003 dollars using the Consumer Price Index for all urban consumers (CPI-U).

¹⁶ For children under the age of 15 who are receiving SSI benefits the income will be reported as SSI child income for an adult in the household (the unit of observation in the SIPP is a person-month). Thus if there are multiple children in the household under age 15 it is not possible to determine which one is receiving SSI. For children who are 15-17 years old, SSI benefits will either be reported as child SSI income for an adult in the household or as adult SSI income for the child.

years, respectively:

$$\begin{aligned}
 \text{AnyChildSSI}_{jkt} &= \beta_0 + \beta_1 \text{Kids}_{jkt} + \beta_2 \text{Boys}_{jkt} + \beta_3 \text{MomOnly}_{jkt} + \beta_4 \text{DadOnly}_{jkt} + \\
 [1] \quad &\beta_5 \text{Neither}_{jkt} + \beta_6 \text{LessHighSchool}_{jkt} + \beta_7 \text{SomeCollege}_{jkt} + \beta_8 \text{CollegeGrad}_{jkt} + \\
 &\beta_9 \text{Black}_{jkt} + \beta_{10} \text{Hisp}_{jkt} + \beta_{11} \text{GenAFDC}_{jkt} + \beta_{12} \text{SSISupp}_{kt} + \mu_t + \varepsilon_{jt}
 \end{aligned}$$

The variable Kids_{jkt} controls for the number of children in the household between the ages of 0 and 17.

All else equal this should be positively related with the probability of having a child on SSI. The variable Boys_{jkt} is separately included because boys are much more likely than girls to receive child SSI benefits.¹⁷

as they are substantially more likely to have mental and behavioral disorders. The model also controls for the presence of one or more parents in the household, the education level of the more educated parent (or guardian if no parent is present), and the race and ethnicity of the children. The variable GenAFDC_{jkt} is intended to capture the effect of the benefit generosity of the state's welfare program. It is defined as the maximum AFDC or TANF benefit in state k in year t given the size of family j .¹⁸ The variable SSISupp_{kt} is an indicator that equals one if state k supplemented child SSI benefits in year t and zero otherwise.¹⁹

The model also includes indicator variables for year to control for any time effects shared across households.

Column (1) in Table 2 reports the mean values of all the explanatory variables included in the regression model. Column (2) reports the estimated marginal effects of these variables on the likelihood of child SSI benefits in the household. The results summarized in column (2) indicate that the likelihood of child SSI benefits is significantly positively related with the number of children in a household and increases in the number of boys in the household. This is not surprising as boys constitute a larger share of the overall SSI child caseload, in particular owing to the greater documented prevalence of mental disorders among boys. The estimated positive coefficients on *MomOnly*, *DadOnly*, and *Neither* imply that children living in a household with two parents are significantly less likely to receive SSI than their

¹⁷ There is substantial evidence from the fields of child and clinical psychology that boys are more likely than girls to experience mental disorders.

¹⁸ We approximate this as the number of children plus the number of parents in the household.

¹⁹ The AFDC/TANF and SSI supplement data were obtained from various years of the publications *Overview of Entitlement Programs* and *State Assistance Programs for SSI Recipients*, respectively.

counterparts in families headed by one parent or by a guardian that is not the parent. The estimated marginal effects also imply that children with less educated parents are statistically significantly more likely to receive SSI benefits, controlling for other demographic characteristics.

Interestingly, the generosity of welfare benefits in a household's state of residence is a statistically significant *negative* determinant of whether the household receives child SSI benefits. This corroborates the findings of Garrett and Glied (2000) and Kubik (1999), discussed above. The data also indicate that a child is more likely to receive SSI when living in a state that supplements the federal benefit.²⁰ The estimated marginal effects on *Black* and *Hispanic* imply that conditional on other household characteristics, black children are significantly more likely to receive SSI benefits than white children, but Hispanic children are not. And finally, the estimates for the coefficients on the three year indicator variables (1992 is omitted) confirm a significant increase in child SSI receipt over time.

For the sake of comparison and contrast, columns (3) and (4) present analogous estimates for adult SSI receipt and AFDC/TANF receipt among households with children. For the receipt of adult SSI benefits, neither the number of children nor the number of boys is significantly related to program participation. The financial generosity of the state's AFDC/TANF program is also not significantly related with adult SSI receipt. These findings, which contrast with the results from the first specification, suggest that the corresponding estimates for child SSI enrollment are not simply capturing the influence of omitted characteristics of residents of a state that influence SSI receipt generally rather than child enrollment specifically. They also serve to bolster our confidence that the SIPP is accurately recording whether household SSI benefits are due to child or adult program participation. The coefficient estimates for family structure, education of the parent, race and ethnicity of the children, and year effects are qualitatively similar to those for child SSI receipt.

The results presented in the final column show that household structure, parental education, and the race and ethnicity of the children have a similar relationship with the likelihood of AFDC/TANF

²⁰ Specifying this variable with the dollar amount of supplementation instead of an indicator variable for supplementation also yields positive point estimates, though these are not statistically significant.

receipt as they do with child SSI receipt. But three differences with the child SSI results are worth noting. First, whereas the number of children is significantly positively related with AFDC/TANF receipt, the relationship is not significantly stronger for households with relatively many boys. Second, while child SSI receipt is negatively determined by AFDC/TANF generosity, the opposite is true for welfare receipt. And finally, the estimates for the year indicators demonstrate that AFDC/TANF receipt fell from the first to the final survey year while the opposite is true for SSI. These results suggest that while many family characteristics similarly determine SSI and welfare receipt, there are some important differences as well.

IV. Estimating the Causal Effect of Child SSI Receipt on Household Outcomes

We now turn our attention to estimating the impact of child SSI participation on household outcomes, including earned income, total income, poverty status, and health insurance coverage. Our empirical strategy is to exploit the longitudinal nature of the SIPP to determine whether there is a break in household outcomes corresponding to the period in which the household first receives child SSI benefits. For this analysis we use longitudinal data from the 12 waves (48 months) of the 1996 SIPP and the 9 waves (36 months) of the 2001 SIPP. Each of the 1996 and 2001 surveys contains a sample of more than 35,000 households. In the pooled data from 1996 and 2001, there are 20,949 households with one or more children under the age of fifteen in wave one and who are still present in wave two of the survey.²¹ Of these, 998 report the receipt of child SSI benefits in one or more waves.²² It is important to note that by examining data from 1996 and 2001, we are focusing on a period that follows the rapid growth in child SSI participation from 1989 to 1996. It also means that we are examining data from the post-welfare reform period.

A. Mean Outcomes for Households with Children

²¹ After the first wave individuals may separate from the initial households to form new households though for the purposes of our analysis we combine information in each wave for all individuals in the same wave one household. If an individual joins the SIPP in a subsequent wave (e.g. because of marriage) then this individual is attached to the same wave one sample unit as others in his/her current household.

²² Though there is a variable in the 1992 and 1993 SIPP surveys indicating whether a child and/or an adult is enrolled in SSI, this variable is almost always missing after the first wave. These earlier years of survey data are thus not reliable sources of data for our empirical strategy.

Table 3 provides summary statistics for households with children with benefits from child SSI, adult SSI, or AFDC/TANF in the first wave of the 1996 and 2001 surveys. With respect to our outcome variables of interest, there are substantial differences between households with a child on SSI and those receiving some AFDC/TANF income. These differences are noteworthy because these two means-tested programs serve fairly similar populations. Households with children and with an adult on SSI are quite different from these two groups, with approximately 20% fewer children on average and 40% more adults. Of course, differences in average outcomes are not sufficient to shed light on the causal effect of either program; they merely help to motivate the regression analyses that follow.

Children in households with child SSI income are less likely than those on AFDC to live in poverty, with this difference especially pronounced for deep poverty, which we define to be less than 50 percent of the poverty line. While 34 percent of households with children on AFDC were in deep poverty, just 6 percent of families with a child on SSI were. These lower poverty rates are to some extent driven by the much higher average earnings among households with a child on SSI though also by the more generous benefits. In 1996, average earnings were \$1,028 greater (\$4,735 versus \$3,707) during the four-month period in households with a child on SSI than in households with some AFDC income. These differences could be partially attributable to differences in labor supply incentives given that the incentive for a parent to work was much greater if his/her child was on SSI than if the family was on AFDC.²³ The differences in average earnings were even larger in 2001. This was true even though TANF incorporates work requirements and more generous earnings disregards than AFDC. This suggests that at least part of the difference in earnings may be mechanical or driven by differences in the characteristics of recipients of the two programs.²⁴

²³ For example, a single parent with one child could have earned more than \$1000 per month before the child's SSI benefits would decline. The tax rate on benefits in the phase-out region would be 50 percent. In most states the earnings disregard for AFDC would have been much lower and the effective tax rate on earnings much higher. See, for example, the case of Pennsylvania summarized in Table 7-3 of the 1998 Overview of Entitlement Programs.

²⁴ There are of course many other possible explanations for these differences. For example, given the sharp decline in AFDC/TANF receipt the average characteristics of those receiving welfare benefits may have changed substantially during this five year period. Additionally a much smaller fraction of households with a child on SSI are also receiving traditional welfare benefits. This may partially explain the increase in earnings for this group.

A third notable difference between the two groups is that the fraction of households with food stamp benefits is substantially greater among welfare households than households with child SSI benefits—88.4 versus 47.1 percent in 1996 and 82.4 versus 31.0 percent in 2001. This is consistent with the hypothesis that SSI benefits may to some extent crowd out other transfer income. In terms of health insurance coverage, children in households with child SSI income and AFDC income look very similar in 1996. The percent of children with Medicaid coverage is 87.1 percent and 87.8 percent, respectively; the percent with any health insurance coverage is 94.2 percent and 93.0 percent. This is much greater than the rate of health insurance coverage among all children in the U.S., with approximately 14 percent reporting that they were without health insurance in the first wave of both surveys. This potentially suggests that participation in either program is an effective means at increasing health insurance coverage among children. The 2001 data suggest larger differences, with the percent of SSI children with Medicaid having fallen to 68.6 percent. One conjecture as to why this is the case is that fewer households with child SSI income also receive welfare income in 2001, as compared to 1996, and it was the link to the welfare system that may have kept the family enrolled in Medicaid.²⁵

The differences summarized here suggest that the enrollment of a child on the SSI program may have a substantial effect on household outcomes such as earned income, total income, poverty, and health insurance coverage. However, given that families with higher incomes can be eligible for SSI, it is not obvious how much of these differences are mechanical (i.e., a reflection of program rules) or simply the result of other differences between the two groups. For example Powers (2003) finds that children's health (which will be correlated with child SSI receipt) exerts an important effect on parental labor supply decisions, especially for female-headed households. This motivates the empirical analyses that follow.

B. Empirical Specification

As discussed above, cross-sectional comparisons of households with and without child SSI benefits would almost certainly confound any effects on household outcomes due to program

²⁵ An alternative explanation is that some households enrolled in private Medicaid managed care plans may report private health insurance rather than Medicaid in the survey, as Medicaid managed care grew substantially in the U.S. from 1996 to 2001 (Duggan, 2004).

participation with selection effects and/or the independent effect of having a disabled child in the household. To overcome this identification problem, we exploit the longitudinal nature of the SIPP to explore whether the enrollment of a child on SSI leads to a discernable shift in family outcomes. We are able to control for household fixed effects in our empirical model to capture any time-invariant differences across households in the sample.²⁶

To attribute a *causal* interpretation to any observed change in outcomes, even with the inclusion of household fixed effects, it must be the case that other factors that influence the outcome variable Y are not changing at precisely the same time that the child enrolls in SSI. Though such an assumption would not be appropriate for an examination of the effects of many other transfer programs, it seems defensible in the present setting for two reasons. First, the overwhelming majority of children enrolled in SSI have a chronic rather than an acute condition. It is therefore unlikely that the severity of the child’s illness – which could have an independent effect on household outcomes - would change discontinuously at precisely the time that the award is made. Second, it seems unlikely that parents would alter their labor supply in anticipation of SSI benefits as the majority of applications are denied and even in those cases when an application is accepted, there is a substantial lag between initial application and receipt of benefits.²⁷ Fortunately, we need not rely on these assumptions holding absolutely. An important advantage of the SIPP data is that we can actually observe whether household outcomes change noticeably in the months leading up to SSI benefit receipt compared to earlier periods.

Our two main estimation equations are specified as follows:

$$[2] \quad Y_{jt} = \beta_0 + \beta_1 I(POST_SSI)_{jt} + \Gamma \mathbf{X}_{jt} + \mu_j + \rho_t + \varepsilon_{jt}$$

²⁶ This strategy is similar to the approach taken by Currie and Thomas (1995) in their study of health insurance effects using longitudinal data from the National Longitudinal Survey. An alternative strategy that we have explored is using the generosity of AFDC/TANF benefits in the state or the presence of a state SSI supplement to instrument for child SSI enrollment. Unfortunately given the relatively low fraction of children on SSI, the limited effect of both variables on SSI enrollment, and the number of households in the SIPP, we do not have sufficient statistical power to use this strategy for estimating the effect of child SSI.

²⁷ We might be concerned about an “Ashenfelter dip” driving selection into the program – if parents apply to enroll their child on SSI when they experience a negative shock in economic circumstances, we might observe a bounce back of their economic situation when the child finally begins to receive benefits. This might lead us to erroneously attribute to child SSI participation. Comparing household outcomes in the months leading up to SSI benefit receipt to outcomes in earlier months will help determine if this type of phenomenon is driving any of our results.

and

$$\begin{aligned}
 Y_{jt} = & \beta_0 + \beta_1 I(PRE_MONTHS_5-8)_{jt} + \beta_2 I(PRE_MONTHS_1-4)_{jt} + \\
 [3] \quad & \beta_3 I(FIRST_SSI)_{jt} + \beta_4 I(POST_MONTHS_1-4)_{jt} + \\
 & \beta_5 I(POST_MONTHS_5-8+)_{jt} + \Gamma \mathbf{X}_{jt} + \mu_j + \rho_t + \varepsilon_{jt}
 \end{aligned}$$

in which j indexes households and t indexes waves.²⁸ We begin by estimating these equations for all 20,949 households from the pooled 1996 and 2001 SIPP surveys with one or more children between the ages of 0 and 14 in wave one and that are still present in the second survey wave. We test the robustness of our findings by estimating the equations on alternative analysis samples, for example by including only households that ever enroll a child on SSI or only on households that report having a disabled child.

If our identifying assumptions hold, then the estimated coefficient on *POST_SSI* in equation (2) will capture the average effect of SSI enrollment on the outcome variable of interest for those households that enroll a child in SSI. Estimation of equation (3) enables us to observe trends in the dependent variable in both the pre and post SSI enrollment period. The variables *PRE_MONTHS_1-4* and *PRE_MONTHS_5-8* are set equal to one in the wave immediately before and two waves before the first wave of child SSI enrollment, respectively. The variable *FIRST_SSI* is equal to one in the first wave of child SSI benefit receipt and zero otherwise; *POST_MONTHS_1-4* is an indicator variable for the wave immediately following the first wave with child SSI enrollment; and *POST_MONTHS_5-8+* equals one in all subsequent waves. This variable remains equal to one even if the child exits the program.

The model controls for household fixed effects μ_j to difference out unobserved, time-invariant differences across households. An important household characteristic that is changing over time, and hence not controlled for with household fixed effects, is the age composition of children. We thus include a vector \mathbf{X}_{jt} of the number of individuals in five different age ranges (0-5, 6-11, 12-14, 15-17, and 18 plus years). The regression model also includes indicator variables for 21 waves – twelve for the 1996

²⁸ We define a household based on wave one household, so if a household were to split in a later wave, the data for all splintered households would be aggregated to the original household in all subsequent waves. We use waves rather than months as our time period because of the well-documented “seam bias” in the SIPP. This term is used to describe the much higher rate of employment, insurance, and other transitions between waves than within waves. Because of this it is not clear that month-to-month variation is as reliable as wave-to-wave variation.

survey and nine for the 2001 survey. These are included to capture any changes over time in the outcomes variable of interest that are common across households and unrelated with SSI enrollment.

It is important to emphasize that this empirical strategy identifies the average effect of child SSI enrollment only for those households that enroll a child in the program. This may differ substantially from the corresponding effect for households with children not on SSI, either those who applied and were rejected or those who never applied. In particular, the fact that these households have disabled children suggests that their response to program benefits or incentives may be quite different from the response that would be found were SSI to be expanded to households with healthier children. Our estimated effects in the analyses that follow should therefore be interpreted as the average effect for households with a child on SSI. This effect is commonly referred to in the program evaluation literature as the average effect of treatment on the treated (Heckman et al, 2001).

V. The Effect of Child SSI Participation on Household Outcomes

A. Unearned Income

We begin our investigation of the effect of child SSI enrollment by estimating the average change in transfer income in households that enroll a child in SSI. Table 4 presents the results from Ordinary Least Squares (OLS) estimation of equations (2) and (3). The first two panels report results for Y_{jt} defined as total SSI benefits, which is the sum of child and adult benefits received by household members. The latter definition allows us to consider that some children on SSI will reach the age of 18 during our study period or that some households may not correctly identify their SSI income as child versus adult income in every wave. The estimated coefficient on *POST_SSI* implies a statistically significant increase in total SSI income of \$1,747 per wave (standard error of 91), or \$436 per month. The coefficients on the variables *PRE_MONTHS_1-4* and *FIRST_SSI* indicate a sharp increase of \$2,088 a wave, or \$522 per month, in the wave of enrollment. The estimated coefficients on the *FIRST_SSI* and two *POST* variables show a downward trend, presumably reflecting attrition from the program and perhaps some increase in underreporting over time.

The results presented in the next four panels demonstrate to what extent this substantial increase in SSI transfer income leads to a decrease in other forms of transfer income. In the final columns of the table we present the estimated impact on total unearned income. We begin by looking for changes in AFDC/TANF income that correspond to the time of enrollment of a child on SSI. Recall that an individual cannot legally receive benefits from both programs. Hence, if a child in a family on welfare enrolled in SSI, the family's AFDC/TANF benefit should fall as a result. The estimated impacts are indeed negative, though not nearly as large in magnitude as the increase in SSI income. The estimated coefficient on the *POST_MONTHS_5-8+* indicator, which is perhaps the most reliable indicator of the long-term adjustment of program participation, is the most negative: a \$241 decrease per wave (standard error of 73), or \$60 per month. The estimated impact of child SSI enrollment on the probability of any welfare receipt (not shown) is 8.4 percentage points or, as estimated in equation (3), 14.1 percentage points in the period more than eight months after enrollment.

The next two columns report the results for estimation of the impact of SSI enrollment on the dollar value of in-kind assistance received through the Food Stamp Program (FSP) and Women, Infant, and Children (WIC) program. If the increase in SSI income exceeds any reduction in other income then the family's dollar amount of food stamp transfers would potentially decline as well. The coefficient estimates are negative and increasingly so over time, but the long term decrease in food stamp plus WIC income (as captured by the *POST_MONTHS_5-8+*) is less than a tenth of the long term increase in SSI income. The final panel suggests that the net impact on total household unearned income, defined as total household income minus total household earnings, is an average increase of \$1,650 per wave (standard error of 160), or \$412 per month.

B. Total Household Earnings and Income

Having established that total unearned income increases by an average of roughly \$400 per month after child SSI enrollment, we now investigate to what extent this is offset (or augmented) by a change in earnings and what the net change in total household earnings is. A large body of previous research has investigated the labor supply incentives of the AFDC and TANF programs. Only one paper of which we

are aware considers the effect of child enrollment in SSI on labor supply. Kubik (1999) uses CPS data to investigate whether the labor supply of single women with children and with some household SSI income is different from their observably similar counterparts with no household SSI benefits.²⁹ He uses differences across states in the incentive to apply for SSI to instrument for program enrollment and his findings suggest that SSI reduced parental labor supply. But as mentioned above, the CPS does not differentiate between child and adult SSI receipt and the disincentive to work is much greater if the adult, rather than the child, is the SSI participant. Therefore, Kubik's conclusion that child SSI receipt reduces labor supply could simply reflect the effect of adult SSI enrollment.³⁰

As described above, average earnings in households with a child on SSI are substantially greater than in households with welfare income. This could be a mechanical reflection of higher break-even levels for the SSI or reflect the fact that children on SSI are more likely to live with both parents. Alternatively, it might reflect the fact that the program's rules do not discourage earnings as explicitly as the rules of pre-reform AFDC. It might also be the case that the labor supply decisions of parents with disabled children are more complicated than the traditional labor supply model posits. An increase in transfer income to these households might have a negative income effect; in particular, it might enable a parent to stay home to care for the child. On the other hand, it might allow a parent to buy specialized child care thereby "freeing up" their time for work outside the home. In other words, both the sign and the magnitude of the effect of child SSI enrollment on household earnings is theoretically ambiguous.

The first six columns of Table 5 report the results of OLS estimation of equation [2] where Y_{jt} is defined as an indicator for whether the household has positive earnings, the natural logarithm of household earnings, and the level of household earnings. The regression-adjusted estimates in the first

²⁹ Neumark and Powers (2004) investigate the effect of SSI on the labor supply of near elderly individuals. Once an individual reaches the age of 65, he/she can become eligible for the program even without a disability if income and assets are sufficiently low. Their findings suggest that people strategically reduce their labor supply as they approach the age of 65 to qualify for benefits.

³⁰As Kubik (1999) notes, "it is not possible to separate the effects of net SSI benefit generosity on the probability of SSI receipt of children and parents using the variation created by the interaction of the AFDC and SSI benefit schedules." According to our SIPP data, households with children and with some SSI income are actually more likely to have an adult rather than a child SSI recipient.

two columns suggest that child SSI enrollment has little impact on this extensive margin of labor supply. The statistically insignificant point estimate of .005 (standard error of .016) implies a 0.5 percentage point increase in this probability after a child enrolls in SSI. The next two columns summarize the results from analogous specifications of the log of earnings, thereby dropping observations with earnings less than or equal to zero. The statistically insignificant estimate for the POST SSI coefficient of -.023 in column (3) suggests a 2.3 percent decline in earnings among those working. However, the pattern of coefficients in the estimation of equation [3] suggests that there is potentially a decline in the period of child SSI enrollment. The estimated coefficient on *PRE_MONTHS_1-4* is 0.001 (standard error of 0.055) and the estimated coefficient on *FIRST_SSI* is -0.100 (standard error of 0.62). Though not statistically significant, this difference is pronounced. However, it does not persist over time, as shown by the positive estimate of .058 for the *POST_MONTHS_5-8+* coefficient. Estimates for the level of earnings are qualitatively similar, with a modest decline in the first wave of enrollment but some recovery in subsequent waves.

The absence of a substantial reduction in earnings, coupled with the large increase in total transfer income, suggests a substantial increase in total household income. The regression-adjusted effects reported for total household income in the final two panels of Table 5 confirm this prediction. Columns (7) and (8) present the estimated effects for total household income in levels and columns (9) and (10) present the estimated effects for the dependent variable defined as the natural logarithm of total household income. The simple *pre-post* estimate suggests an increase of \$1,265 (standard error of 350), which is more than 72 percent of the corresponding estimate for total SSI income. In the more descriptive equation, the estimated coefficient on *PRE_MONTHS_1-4* is -106 (standard error of 478) and the estimated coefficient on *FIRST_SSI* is \$1,455 (standard error of 502), suggesting a change in income of \$1,561 per wave, or \$390 per month corresponding to the wave of child enrollment in SSI. The estimated impact on total household income is higher in the next four months and is subsequently less.

We next estimate equations [2] and [3] for the dependent variable defined as the log of total household income. This specification has two advantages: the effect of outliers on the OLS estimate is mitigated and changes can be interpreted as proportional changes. The results from this specification

demonstrate a statistically significant increase in household income of 21.9 percent ($e^{0.198} - 1$) following child enrollment in SSI. The pattern of coefficients estimated for equation [3] suggests little change in total income in the months preceding enrollment, but a statistically significant increase post child SSI enrollment in the range of 20 and 25 percent, with the impact decreasing slightly over time.

C. Poverty

We now turn our attention to the effect of child SSI enrollment on economic well-being as measured by poverty status. The findings from the preceding two sections suggest that SSI benefits increase household income by an average of 72 cents on the dollar. Despite this, it is possible that the program does little to reduce poverty. First, if children awarded SSI benefits are not initially in poverty then they cannot be lifted out of it. On the other hand, if children awarded SSI live in households with very little income or if it offsets some other sources of income, then the increase in transfer income might not be sufficient to lift them out of poverty.

In Table 6 we report the results for estimation of equations [2] and [3] for several different measures of poverty. The first three panels of results report estimated coefficients for Y_{jt} defined as an indicator variable for whether household j 's total income in wave t is below the poverty threshold, below 50 percent of the poverty threshold, and above 200 percent of the poverty threshold, respectively. The next panels in columns (7) and (8) define the dependent variable as the number of children in household j living below the poverty threshold. And finally, the last two panels in columns (9) through (12) report the results for Y_{jt} defined as the number of people in household j living below the poverty threshold and above 200 percent of the poverty threshold, respectively. The poverty threshold is the census poverty threshold of income in the year for a household and is provided in the SIPP given the number of adults and children. We adjust the threshold to correspond to recorded income in the SIPP, which is defined over a four-month period. We define the number of children and people in poverty as the number of children and people in the household multiplied by an indicator for whether total household income is below the relevant poverty threshold.

The estimated effects reported in Table 6 demonstrate that child SSI participation does

substantially lower poverty. Specifically, the regression-adjusted *pre-post* comparison reported in column (1) suggests that the probability that a household's income is below the poverty line falls by 10.8 percentage points (standard error of 1.8) following the child's enrollment in SSI. This effect is persistent, as the coefficient estimates from the more descriptive specification reveal. The likelihood that a household is in poverty two waves after child SSI enrollment is 10.4 percentage points lower than it is three waves prior to enrollment (standard error of 2.4). The next two columns explore whether the effect is driven by a reduction in deep poverty, defined as less than 50 percent of the poverty line. The estimates in columns (3) and (4) reveal that it is, with deep poverty falling by almost 7.6 percentage points (standard error of 1.7) following the first receipt of child SSI benefits. This effect also appears to be persistent.

As mentioned above, many non-poor households are income-eligible for the SSI program. It is therefore plausible that the program not only reduces poverty, but also increases the income of families further up in the income distribution. The results reported in columns (5) and (6) provide support for this effect, with the probability that a household's income is more than twice its reported poverty line increasing by 8.1 percentage points. As was true for both poverty and deep poverty, this effect is persistent.

In the next two columns we explore the effect of SSI enrollment on the number of children in poverty. These specifications consider that many child SSI recipients have one or more siblings who are not on the program and hence the impact on the number of children might be greater than the impact on households. The estimated impacts reported in columns (7) and (8) suggest that the number of children lifted out of poverty is twice as large as the number of households. The effect is even greater for the number of people in poverty and the number of people with household incomes more than twice the poverty level. According to the estimates presented in columns (9) and (11), for every 100 children who are awarded SSI benefits, roughly 37 people are lifted out of poverty and 28 see their household incomes increase to more than twice their poverty level. Again, these effects appear to be persistent.

D. Health Insurance Coverage

When a child enrolls in the SSI program, he typically becomes eligible for health insurance through the Medicaid program.³¹ It might therefore be the case that child SSI enrollment increases health insurance coverage. Consider a child who was previously not covered by health insurance. When he enrolls in SSI, and hence Medicaid, there should be a one-for-one increase in both Medicaid and health insurance coverage.³² However, if a child who enrolls in SSI was already insured through Medicaid then we would see no impact on either Medicaid or on health insurance. Or, he might have previously been covered through private health insurance or through another government program, in which case his enrollment in Medicaid would have no effect on the probability of health insurance coverage. This latter example would provide a possible mechanism through which Medicaid enrollment could crowd out other health insurance coverage.³³

Table 7 presents our estimates for the effect of child SSI enrollment on the number of children in the household with Medicaid³⁴, with any health insurance, and with private health insurance. Columns 1, 4, and 7 report the results from estimating equation [2] on these three outcome variables. The statistically significant point estimate of 0.099 in column 1 implies that for every 100 children awarded SSI benefits, approximately 10 become newly eligible for Medicaid benefits. The fact that the point estimate is much less than one is not surprising when one considers that more than 60 percent of children in these households were on Medicaid in the wave before the first receipt of SSI benefits. The corresponding estimate for the number of children with any health insurance is less than half as large and statistically insignificant. Taking the ratio of the two point estimates, it appears that just 41 percent of those children

³¹ In forty out of fifty-one states, SSI recipients are automatically eligible for Medicaid. Eleven states use more restrictive criteria when determining Medicaid eligibility (SSA, 2004).

³² If that child has siblings who were eligible for Medicaid but not covered, his enrollment in SSI could potentially lead the family to learn of their Medicaid eligibility and enroll the other children in the household in Medicaid. In that case, we could observe an increase in Medicaid and health insurance coverage of greater than one-for-one.

³³ In the seminal paper on the topic, Cutler and Gruber (1996) evaluated the impact of the Medicaid program expansions of the late 1980s and early 1990s and estimated take-up rates among the newly eligible of 24 percent and crowd-out propensities of about 7 percent. Subsequent papers have found smaller rates of both take-up and crowd-out. Shore-Sheppard (2005) revisits the Cutler and Gruber approach and finds crowd-out propensities of close to zero. It is worth noting that the take-up and crowd-out rates associated with child SSI participation need not be similar to those associated with the Medicaid expansions.

³⁴ If a child is enrolled in the Children's Health Insurance Program (CHIP) then we code them as being covered by Medicaid.

made eligible for Medicaid were previously without health insurance.

As previous work has noted, one possible effect of Medicaid enrollment is a reduction in private health insurance coverage (Cutler and Gruber, 1996). The specification summarized in column (7) investigates this possibility by testing whether private insurance coverage declines following the first receipt of SSI benefits. The point estimate of $-.037$ suggests that there may be some crowdout, though the estimate is not statistically significant.

The summary statistics presented in Table 3 suggest that the effect of child SSI enrollment on health insurance coverage may differ in the latter part of our study period. As the table shows, Medicaid enrollment is substantially lower and private insurance coverage is much higher among families with a child on SSI in early 2001 than in early 1996. This may to some extent reflect the decline in TANF enrollment among households with a child on SSI (from 34.3 to 14.5 percent), which has reduced the number of children categorically eligible for Medicaid. To investigate whether the effect is different in the latter part of our study period, we interact the *POST_SSI* indicator with two survey indicators. The results for these specifications are summarized in columns 2, 5, and 8. Interestingly while the estimated effect on Medicaid coverage is substantially greater for the 2001 sample, there is no corresponding difference for any health insurance coverage. This is apparently because SSI enrollment has, according to the significantly negative estimate of $-.145$ in column 8, significantly reduced private health insurance coverage among children in the more recent part of our study period.

Columns (3), (6), and (9) of Table 7 explore the pattern of changes in health insurance coverage in the months leading up to and immediately following the first receipt of SSI benefits. Consistent with the previous results, the estimated effect for Medicaid is much larger than for any health insurance coverage. But the effect on Medicaid appears to be short-lived, as the point estimate for the *POST_MONTHS_5-8+* coefficient is small and statistically insignificant. Taken together, this set of results suggests that enrollment of a child on SSI has little effect on the health insurance coverage of children in affected households. This is partially driven by the fact that more than 82 percent of children in these households already had health insurance from another source in the wave prior to enrollment.

VI. Robustness of Findings to Alternative Analysis Samples

The results presented so far use all 20,949 households with children in the first wave of the 1996 and 2001 versions of the SIPP to estimate the effect of child SSI enrollment. We include all households rather than only those with a child on SSI to control for macroeconomic conditions and related factors that may lead to changes over time in earnings, poverty, and health insurance coverage that are unrelated to the SSI program. One potential concern with this approach is that, even though our identification strategy primarily exploits within-household variation in SSI enrollment, our "control group" may be too broad. Trends in earnings for very high income households or for households without any disabled children may, for example, be very different from those for children who apply for and/or eventually receive SSI benefits. If this were true, it could bias our estimates.

To gauge the potential importance of this issue, in Table 8 we summarize the results from additional specifications in which we use five alternative analysis samples. The first column lists the estimates summarized above in Tables 4 through 7 for the *POST_SSI* indicator. In column (2) we present an analogous set of results for households that ever report receiving or applying for SSI benefits.³⁵ This reduces the number of households in our sample from 20,949 to 2,715. The pattern of estimates is quite similar and suggests that SSI enrollment leads to a significant reduction in child poverty, a significant increase in Medicaid coverage, and has little effect on the extensive margin of household labor supply. The most notable difference in the estimates exists in the log(earnings) specification, with the results for the more narrowly defined sample suggesting that enrollment of a child on SSI reduces conditional earnings by approximately 11 percent. This decline is not nearly sufficient, however, to offset the increase in unearned income, with total household income estimated to increase by more than 17 percent. The estimated effect for health insurance coverage is also marginally significant for this sample, though the point estimate is just half as large as the corresponding estimate for Medicaid coverage.

In the specifications that are summarized in column (3), we include only those households that

³⁵ In the first wave of the SIPP, individuals who are not receiving SSI are asked whether they have ever applied for SSI benefits. This variable is unfortunately not asked in every wave.

report having an activity-limited child with a disability between the ages of 6 and 14.³⁶ Because some of the children on SSI are outside of this age range and because some parents may not report their children's conditions, more than half of the households with a child on SSI are not in this sample. As a result the standard errors increase in all specifications but the pattern of results is quite consistent with the previous ones. In the next column we include all households either reporting a disability in their child or who have a child enrolled in SSI during our study period. The estimates are quite similar to those in column three and suggest that enrollment of a child on SSI reduces poverty and increases Medicaid coverage but has little impact on either household earnings or the number of children without health insurance.

The specifications summarized in the final two columns include only those households that report having a child on SSI at some point during the survey, with column 5 including those enrolled in the first wave and column 6 excluding them. The pattern of estimates is quite similar to the ones using alternative control groups in the previous four columns. In all six specifications the estimate for poverty is significantly negative and the estimated effect on Medicaid coverage is significantly positive. The estimated effect for the presence of any household earnings is small and precisely estimated, ranging from a low of -.006 to a high of .012. It therefore appears that enrollment of a child on SSI does not lead to a significant change in labor force participation. The estimates for conditional earnings are all negative and range from implying a 2 to a 13 percent decline.

Given the similarity of the estimates across the different sets of specifications, our initial set of findings appears to be robust. The growth in SSI enrollment has substantially improved the material well-being of families with disabled children while having very little impact on household earnings or health insurance coverage.

VII. Discussion

In this paper we have documented the growing importance of the federal SSI program as a source of cash assistance for low-income families with children. Our investigation of the impact of SSI on household outcomes suggests that this rise in child SSI participation may have played an important role in

³⁶ This question is asked only during the fifth wave of the SIPP.

maintaining the material well-being of low-income families with children since the changes to the federal AFDC/TANF program that were implemented in 1996. Our analysis of household-level SIPP data finds that child SSI participation increases total household income by an average of approximately \$316 per month, or 20 percent. This is accomplished by a substantial increase in transfer income that is only partially offset by a reduction in other transfer income and earnings. Put differently, for every 100 dollars in SSI income transferred to a family, total income increases by more than 72 dollars. Our findings suggest that enrollment of a child in the program has little impact on the extensive margin of labor supply, but the pattern of coefficients over time and across various samples suggests that there might be an offset of conditional earnings on the order of 5 to 10 percent. While we usually consider an offset of earnings to be a negative consequence of transfer programs, to the extent that parents are reducing their earnings to stay home and provide care for a disabled child, any offset of earnings might actually be considered in line with child SSI program goals.

Furthermore, the data suggest that SSI participation is targeted at families such that there is a substantial decrease in poverty. Our analysis suggests that the probability that a household lives in poverty falls by 10.8 percentage points when a child enrolls in SSI and that this reduction in poverty is driven by a reduction in severe poverty, defined as having household income of less than 50 percent of the census poverty threshold. The data suggest that for every 100 children who enroll in SSI, 22 children and 37 people are lifted out of poverty and an additional 28 people see their incomes increase to more than twice the poverty line. These results suggest that the increase in child SSI enrollment over the past 15 years has potentially played a large role in lowering child poverty rates. Aggregating these effects to the national level, our findings suggest there are approximately 160,000 fewer children in poverty than there would have been absent the increase in child SSI enrollment since 1989.

The data do not indicate a significant effect of SSI participation on health insurance coverage, though there is some evidence of a significant increase in the number of children receiving Medicaid. This set of findings has two important implications. First, though SSI participation entitles a child to Medicaid coverage, it does not appear to be an effective way to increase health insurance coverage among

low-income children. Second, the SIPP data indicate that the majority of children who enrolled in SSI were already receiving Medicaid. This suggests that the average cost of enrolling a child on SSI is much lower than the sum of cash benefits plus Medicaid expenditures would imply. Given that Medicaid expenditures for SSI recipients are substantially larger than cash benefits paid, this is an important fact.³⁷

There are two important limitations to this paper that deserve mention. First, our empirical results shed light on the impact of child SSI enrollment for those families with children who are awarded benefits. To the extent that those whose applications are denied or those who do not apply for the program are different than the households who do enroll a child in the program, the results here will not generalize. That is, instead of representing the average treatment effect of child SSI receipt, our estimates capture the average effect on those who receive this treatment. Similarly, it is important to note that the function of SSI as an anti-poverty program is limited to households with a child having a severe health impairment.

Second, because the SIPP includes only three or four years of longitudinal data, our estimates will not capture the long run impact of child SSI receipt. Future work should investigate the long-run effects of the program, in particular because the average duration on SSI is longer than on traditional welfare. Future work should also investigate additional measures of family well-being, including how families use the additional income that they receive from the SSI program. Recent work has explored the effect of changes in income resulting from welfare reform and changes in tax policy on measures of well-being such as consumption and educational attainment (Meyer and Sullivan, 2004; Dahl and Lochner, 2005). There has been very little work of this type for SSI despite the growing importance of this program.

Current trends suggest that the significance of the SSI program for disadvantaged children will continue to grow while the receipt of TANF benefits declines, with the number of children on TANF falling by 13.1 percent from 2000 to 2004 while SSI receipt among children increased by 17.3 percent during the same period. Thus more work to understand the effects of the Supplemental Security Income program and its interaction with other government programs is clearly warranted.

³⁷ Total Medicaid spending for SSI recipients was greater than \$150 billion in 2003. Thus average Medicaid spending for individuals on SSI is approximately four times greater than average cash benefits.

References

- Bound, John, Sherrie Kossoudji, and Gema Ricart-Moes. 1998. "The Ending of General Assistance and SSI Disability Growth in Michigan." In *Growth in Disability Benefits: Explanations and Policy Implications*, ed. Kalman Rupp and David Stapleton, 223-248. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Currie, Janet and Duncan Thomas. 1995. "Medical Care for Children: Public Insurance, Private Insurance, and Racial Differences in Utilization." *The Journal of Human Resources* 30(1): 135-162.
- Cutler, David and Jonathan Gruber. 1996. "Does Public Insurance Crowd out Private Insurance?" *Quarterly Journal of Economics* 111(2): 391-430.
- Dahl, Gordon and Lance Lochner. 2005. "The Effect of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit." University of Rochester mimeo.
- Daly, Mary and Richard Burkhauser. 2003. "The Supplemental Security Income Program." In *Means-Tested Transfer Programs in the United States*, ed. Robert A. Moffitt, 79-139 Chicago: The University Press.
- Duggan, Mark. 2004. "Does Contracting Out Increase the Efficiency of Government Programs? Evidence from Medicaid HMOs." *Journal of Public Economics* (December): 2549-2572.
- Garrett, Bowen, and Sherry Glied. 2000. "Does state AFDC generosity affect child SSI participation?" *Journal of Policy Analysis and Management* 19(2): 275-95.
- Ham, John and Lara Shore-Shepard. 2005. "The Effect of Medicaid Expansions for Low-Income Children on Medicaid Participation and Private Insurance Coverage: Evidence from the SIPP." *Journal of Public Economics* 89(1): 57-83.
- Heckman, James, Justin Tobias, and Edward Vytlacil. 2001. "Four Parameters of Interest in the Evaluation of Social Programs." *Southern Economic Journal* 68(2): 211-223.
- Karoly, Lynn A., Jacob Alex Klerman and Jeannette A. Rogowski, "Effects of the 1996 Welfare Reform Changes on the SSI Program," in Rebecca M. Blank and Ron Haskins, eds., *The New World of Welfare*, Washington, D.C.: Brookings Institution Press, 2001, pp. 482-499.
- Kubik, Jeffrey. 1999. "Incentives for the identification and treatment of children with disabilities: The Supplemental Security Income program." *Journal of Public Economics* 73(2): 187-215.
- Kubik, Jeffrey. 2003. "Fiscal Federalism and Welfare Policy: The Role of States in the Growth of Child SSI." *National Tax Journal* 56(1): 61-79.
- Meyer, Bruce and James Sullivan. 2004. "The effects of welfare and tax reform: the material well-being of single mothers in the 1980s and 1990s." *Journal of Public Economics* 88(7-8): 1387-1420.
- National Academy of Social Insurance. 1995. *Restructuring the SSI Disability Program for Children and Adolescents*. Report from the Committee on Childhood Disability to the Disability Policy Panel of the NASI.

- Neumark, David, and Elizabeth Powers. 2004. "The Effect of the SSI Program on Labor Supply: Improved Evidence from Social Security Administrative Files." *Social Security Bulletin* 65(3): 45-60.
- Neumark, David, and Elizabeth Powers. 2000. "Welfare for the Elderly: The Effects of SSI on Pre-Retirement Labor Supply," *Journal of Public Economics*: 51-80.
- Neumark, David, and Elizabeth Powers. 1998. "The Effect of Means-Tested Income Support for the Elderly on Pre-Retirement Saving: Evidence from the SSI Program in the U.S.," *Journal of Public Economics*: 181-206.
- Powers, Elizabeth. 2003. "Children's Health and Maternal Work Activity: Estimates under Alternative Disability." *Journal of Human Resources* 38(3): 522-556.
- Schmidt, Lucie and Purvi Sevak. 2004. "AFDC, SSI, and Welfare Reform Aggressiveness: Caseload Reductions vs. Caseload Shifting." *Journal of Human Resources* 39(3): 792-812.
- Shore-Sheppard, Lara. 2005. "Stemming the Tide? The Effect of Expanding Medicaid Eligibility on Health Insurance." *NBER Working Paper 11091*.
- U.S. House of Representatives, Committee on Ways and Means. various years. *Overview of Entitlement Programs*. Washington, D.C.: U.S. Government Printing Office.
- U.S. Social Security Administration. 2002. *SSI Annual Statistical Report*.
http://www.ssa.gov/policy/docs/statcomps/ssi_asr/2002
- U.S. Social Security Administration, various years. *Annual Statistical Supplement*. Washington, D.C.: SSA, Office of Research, Evaluation, and Statistics.
- U.S. Social Security Administration, various years *Children Receiving Supplemental Security Income*, Washington, D.C.: SSA, Office of Research, Evaluation, and Statistics.
- U.S. Social Security Administration, various years *State Assistance Programs for Supplemental Security Income Recipients*, Washington, D.C.: SSA, Office of Research, Evaluation, and Statistics.
- U.S. Social Security Administration, various years *Supplemental Security Income Recipients by State and Country*, Washington, D.C.: SSA, Office of Research, Evaluation, and Statistics.

Figure 1: Percentage of Children Ages 0-17 Enrolled in SSI: 1985-2005

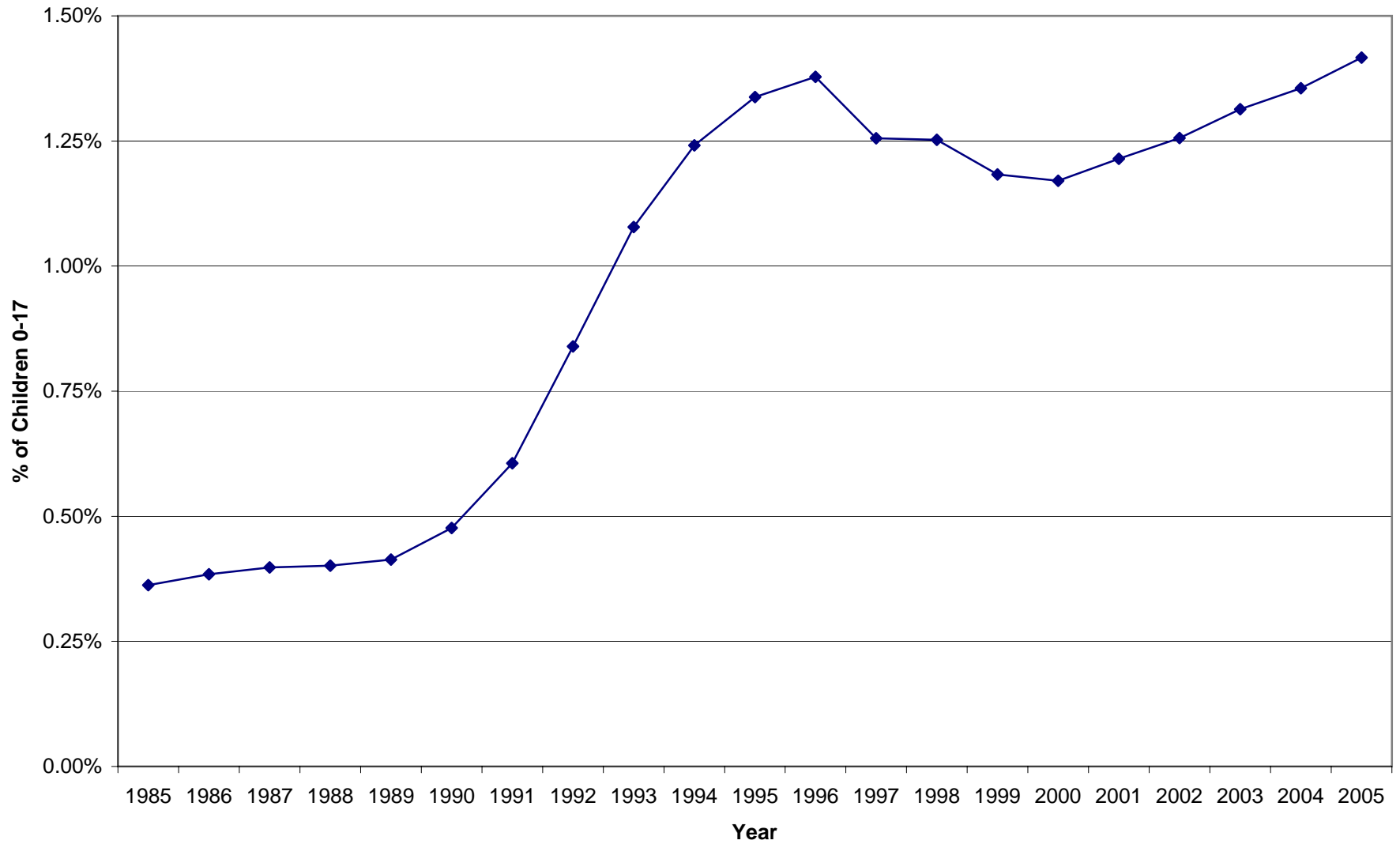


Figure 2: Percentage of Children Applying for or Awarded SSI 1985-2004

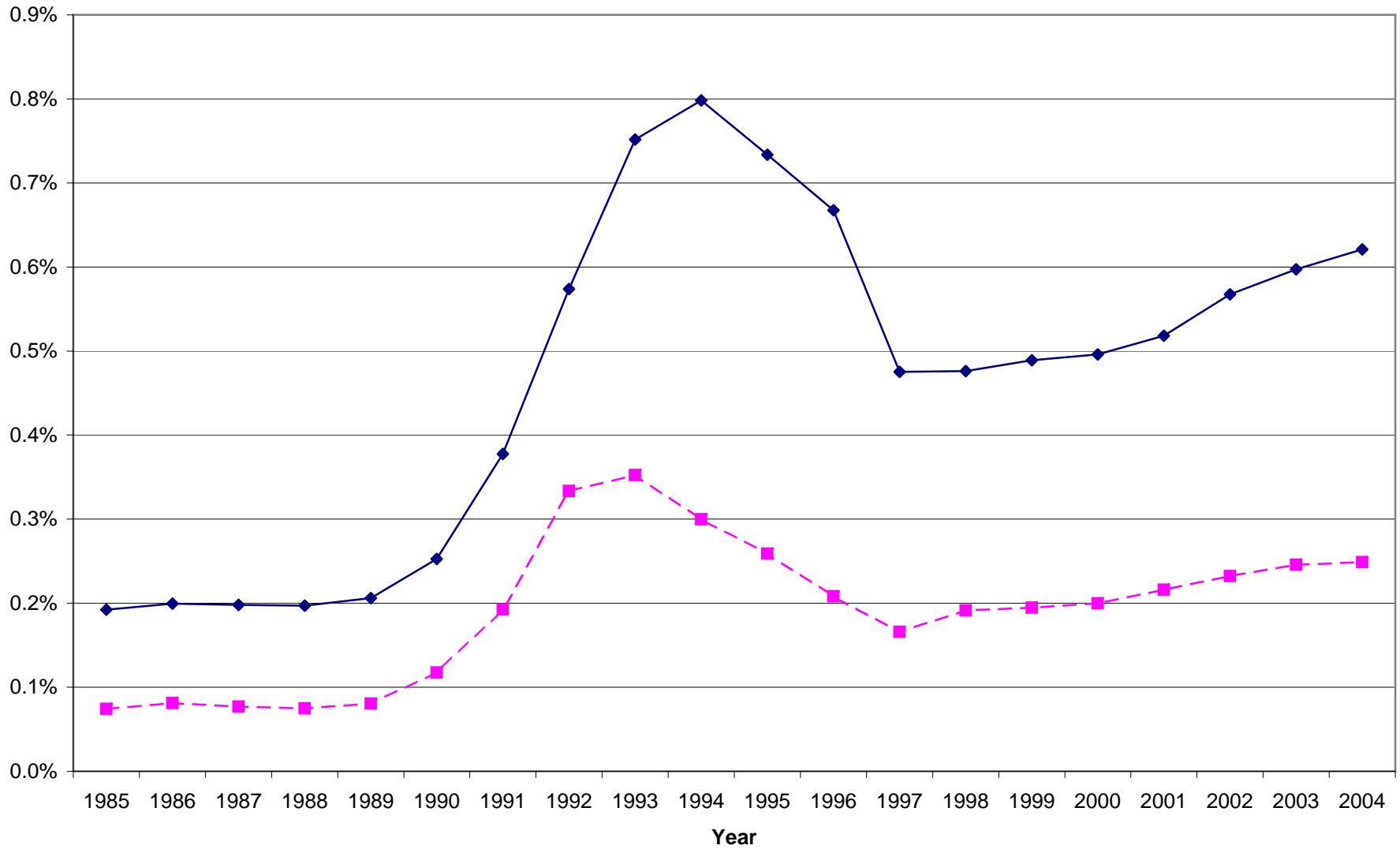


Table 1: SIPP Data on Receipt of SSI and AFDC/TANF in Households with Children: 1990-2004

Household-level Variables	1990	1993	1996	2001	2004
% Households with Any SSI	2.5%	3.4%	4.4%	4.4%	5.4%
% Households with any AFDC / TANF	8.6%	11.2%	9.2%	3.9%	4.1%
% Children with any SSI	2.8%	4.3%	5.1%	4.7%	6.0%
% Children with Any AFDC / TANF	10.3%	14.0%	11.4%	4.8%	4.9%
Avg SSI Benefit Any SSI = 1	\$1,939	\$2,085	\$2,268	\$2,273	\$2,342
Avg AFDC / TANF Ben Any A/T = 1	\$2,127	\$1,978	\$1,680	\$1,249	\$1,178
Ratio of SSI to AFDC / TANF dollars	0.23	0.33	0.66	2.06	2.60
# Households with Children < 18	8523	7530	13918	12913	15541

Data includes information from the first wave of the Survey of Income and Program Participation in each year for households with one or more children under the age of 17. All expenditure amounts are inflation-adjusted to 2003 dollars using the CPI-U. Statistics are calculated using either the household or person weights in each year.

Table 2: Determinants of SSI & AFDC / TANF Receipt among Families with Children

	(1) Mean	(2) Child SSI	(3) Adult SSI	(4) AFDC / TANF
<i>Number of Children 0-17</i>	1.92 (1.02)	0.0042*** (.0007)	0.0015 (.0010)	0.0102*** (.0013)
<i>Number of Boys 0-17</i>	0.98 (0.87)	0.0013* (.0007)	-0.0006 (.0010)	0.0003 (.0014)
<i>Mom Only Present</i>	0.239 (.422)	0.0080*** (.0015)	0.0093*** (.0018)	0.0799*** (.0058)
<i>Dad Only Present</i>	0.034 (.177)	0.0054* (.0030)	0.0102*** (.0028)	0.0273*** (.0046)
<i>Neither Mom nor Dad Present</i>	0.038 (.179)	0.0072*** (.0023)	0.0253*** (.0033)	0.0641*** (.0064)
<i>Less than High School Graduate</i>	0.102 (.302)	0.0095*** (.0019)	0.0222*** (.0034)	0.0462*** (.0048)
<i>Some College</i>	0.319 (.466)	-0.0036*** (.0009)	-0.0104*** (.0015)	-0.0159*** (.0024)
<i>College Graduate</i>	0.289 (.453)	-0.0088*** (.0014)	-0.0160*** (.0013)	-0.0457*** (.0039)
<i>AFDC / TANF Ben in hundreds of \$</i>	5.172 (2.328)	-0.014*** (.0004)	-0.0006 (.0009)	.0050*** (.0009)
<i>State SSI Supplement for Kids</i>	0.368 (.482)	0.0035*** (.0014)		0.0040 (.0068)
<i>State SSI Supplement for Adults</i>	0.453 (.498)		0.0073*** (.0029)	
<i>Black</i>	0.156 (.362)	0.0075*** (.0009)	0.0159*** (.0024)	0.0288*** (.0034)
<i>Hispanic</i>	0.122 (.326)	-0.0012 (.0020)	0.0005 (.0038)	0.0050 (.0068)
<i>Year = 1993</i>	0.241 (.427)	0.0019 (.0016)	0.0019 (.0028)	0.0028 (.0030)
<i>Year = 1996</i>	0.245 (.429)	0.0060*** -0.0021	0.0103*** (.0027)	0.0011 (.0039)
<i>Year = 2001</i>	0.251 (.433)	0.0052*** (.0021)	0.0111*** (.0035)	-0.0270*** (.0034)
<i>Sample size</i>	42,170	41,355	41,355	41,355
<i>Mean of Dep Var</i>	-	0.0156	0.0258	0.0849
<i>Pseudo R-squared</i>	-	0.1141	0.0985	0.3167

Sample consists of all 42,170 households from wave one of the 1992, 1993, 1996, and 2001 versions of the SIPP with one or more children under the age of 18. Column (1) reports the mean and standard deviation for each of the explanatory variables. Columns (2), (3), and (4) report the coefficient estimates from a probit specification characterizing the probability of receipt of child SSI, adult SSI, and AFDC/TANF benefits, respectively. The numbers reported represent marginal effects. Standard errors adjusted for clustering by state are included in parentheses. All specifications are weighted by the household weight in wave one of the SIPP. Approximately 2 percent of observations are not included in the specifications because the state of residence variable is missing.

Table 3: Households with Children and with AFDC/TANF, SSI Child, and/or SSI Adult Benefits

	1996 SIPP Wave 1			2001 SIPP Wave 1		
	SSI Child	SSI Adult	AFDC	SSI Child	SSI Adult	TANF
# Households	299	458	1453	252	435	546
Weighted % of Households	1.9%	2.9%	9.2%	1.8%	3.1%	3.9%
Avg # Kids 0-17	2.58	2.06	2.38	2.25	1.97	2.40
Avg # Adults 18-64	1.77	2.33	1.75	1.85	2.33	1.71
Avg # Adults 65+	0.07	0.28	0.05	0.07	0.22	0.07
% with Both Parents	37.1%	42.5%	22.3%	34.8%	38.6%	20.1%
% with Mom Only	50.7%	38.1%	66.0%	48.8%	42.1%	65.2%
% with Dad Only	2.1%	6.0%	2.1%	5.2%	2.5%	2.6%
% with Neither	10.1%	13.4%	9.5%	11.2%	16.8%	12.1%
Avg H-Hold Earnings	\$4,735	\$6,821	\$3,707	\$6,266	\$7,419	\$3,364
Avg Total H-Hold Income	\$9,072	\$11,508	\$6,611	\$10,654	\$12,023	\$5,938
% with Any SSI Kid	100.0%	14.3%	7.0%	100.0%	17.3%	6.9%
% with Any SSI Adult	22.3%	100.0%	10.7%	29.5%	100.0%	17.3%
% with Any AFDC/TANF	34.3%	33.6%	100.0%	14.5%	21.4%	100.0%
% with Any Food Stamp	47.1%	52.1%	88.4%	31.0%	45.3%	82.4%
Avg SSI Income	\$2,689	\$2,365	\$384	\$2,735	\$2,438	\$540
Avg AFDC / TANF Income	\$526	\$499	\$1,680	\$141	\$237	\$1,249
Avg Food Stamp Income	\$444	\$477	\$1,017	\$241	\$342	\$804
Avg Social Security - Adult	\$399	\$864	\$245	\$473	\$801	\$287
Avg Social Security - Kid	\$187	\$180	\$67	\$249	\$158	\$64
All Other Income	\$536	\$779	\$528	\$790	\$970	\$434
Poverty Ratio 0-49%	6.0%	8.2%	33.9%	7.1%	9.1%	34.0%
Poverty Ratio 50-99%	34.4%	32.6%	34.3%	21.5%	27.5%	34.1%
% Kids with Medicaid	87.1%	62.9%	87.8%	68.6%	64.1%	84.8%
% Kids with Private Health Ins	22.4%	27.9%	13.4%	35.7%	35.7%	21.3%
% Kids with any Health Ins	94.2%	83.6%	93.0%	86.6%	84.4%	89.7%

Table summarizes information for households with one or more children under the age of 18 in the first wave of the 1996 and 2001 Survey of Income and Program Participation and with income from either the SSI or AFDC/TANF programs. SSI Child and SSI Adult columns summarize information for households with one or more children (0-17) and with one or more adults (18+), respectively, receiving SSI benefits. The AFDC and TANF columns summarize information for households with some AFDC or TANF income in 1996 or 2001. Dollar figures are adjusted to 2003 dollars using the CPI-U. Household data is weighted using the SIPP household weights to account for non-random sampling.

Table 4: The Impact of Child SSI Enrollment on Household Transfer Income

	Total Household SSI		Total Welfare Income		Any Welfare Income		Total Food Stamps plus WIC		Any Food Stamps or WIC		Total Unearned Income	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>POST SSI</i>	1747***		-134***		-.084***		-81***		-.025		1650***	
	(91)		(47)		(.019)		(28)		(.021)		(162)	
<i>PRE MONTHS 5-8</i>		175**		-54		-0.018		6		0.047*		196
		(73)		(34)		(.020)		(36)		(.025)		(210)
<i>PRE MONTHS 1-4</i>		226***		-112**		-0.048**		-22		.059**		580***
		(64)		(52)		(.023)		(38)		(.029)		(201)
<i>FIRST WAVE WITH CHILD SSI</i>		2314***		-112**		-.056**		-59		0.038		2334***
		(116)		(52)		(.023)		(39)		(.029)		(231)
<i>POST MONTHS 1-4</i>		2096***		-117*		-.064**		-81**		0.019		2135***
		(122)		(70)		(.025)		(39)		(.030)		(233)
<i>POST MONTHS 5-8+</i>		1556***		-241***		-.141***		-102***		-.016		1582***
		(107)		(73)		(.025)		(38)		(.030)		(226)
<i>R-Squared</i>	0.707	0.713	0.696	0.696	0.673	0.673	0.716	0.716	0.718	0.718	0.642	0.635
<i>Mean, Std. Dev.</i>		115, 626		83, 416		.054, .227		134, 409		.173, .379		1669, 3277

Sample consists of all 20949 households from the 1996 and 2001 versions of the SIPP with one or more children between the ages of 0 and 14 in wave one and who are still present in wave two. Unit of observation is a household-wave and there are 195871 observations in all cases. All specifications include 20949 household and 21 wave*year fixed effects. The explanatory variable POST SSI is equal to one in the first wave that the child is eligible for SSI and in all subsequent waves and is zero otherwise. The even-numbered columns have indicators for the wave of the first SSI enrollment along with two pre and post variables. The dependent variable in columns 1 and 2 equals one if there is a child receiving SSI in that wave in the household and zero otherwise. The variable in the next two columns is defined similarly except it is equal to one if there is any SSI recipient. The last explanatory variable is (inflation-adjusted) SSI income for the household in the wave. Standard errors are clustered by household and included in parentheses.

Table 5: The Impact of Child SSI Enrollment on Earnings and Household Income

	Any Earnings		Log(Earnings)		Household Earnings		Total Household Income		Log(Total Household Income)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>POST SSI</i>	0.005 (.016)		-0.023 (.043)		-385 (322)		1265*** (350)		.198*** (.029)	
<i>PRE MONTHS 5-8</i>		-0.020 (.020)		0.044 (.052)		-487 (479)		-291 (534)		0.026 (.038)
<i>PRE MONTHS 1-4</i>		-0.032 (.022)		0.001 (.055)		-686 (418)		-106 (478)		-0.013 (.044)
<i>FIRST WAVE WITH CHILD SSI</i>		-0.026 (.023)		-0.100 (.062)		-879* (451)		1455** (502)		.222*** (.039)
<i>POST MONTHS 1-4</i>		-0.002 (.023)		-0.084 (.066)		-419 (529)		1716** (577)		0.219*** (.040)
<i>POST MONTHS 5-8+</i>		-0.004 (.022)		0.058 (.058)		-740 (457)		842* (499)		0.181*** (.038)
<i>R-Squared</i>	0.612	0.612	0.736	0.736	0.725	0.725	0.721	0.699	0.696	0.696
<i>Sample size</i>	195,871	195,871	182,289	182,289	195,871	195,871	195871	195871	194,979	194,979
<i>Mean, Std. Dev.</i>	.937, .244		9.596, .908		19307, 19259		20977, 19426		9.633, .885	

Sample consists of all 20949 households from the 1996 and 2001 versions of the SIPP with a child between the ages of 0 and 14 in the first wave of the survey and who are still present in wave two. Unit of observation is a household-wave and the number of observations is listed for each specification. This is sometimes less than 195871 if the dependent variable is a log measure because values less than or equal to zero will be missing. All specifications include 20949 household and 21 wave*year fixed effects. The variable POST SSI is equal to one in the first wave that the child is eligible for SSI and in all subsequent waves and is zero otherwise. The even-numbered columns have indicators for the wave of the first SSI enrollment along with two pre and post variables. The dependent variables are total household earnings (specifications 1 and 2), an indicator for any household earnings (3 and 4), the log of household earnings (5 and 6), total household income (7 and 8), and the log of total household income (9 and 10). Standard errors are clustered by household and

Table 6: The Impact of Child SSI Enrollment on Poverty

	In Poverty		< 50% of Poverty		> 200% of Poverty		Number of Children in Poverty		Number of People in Poverty		Number of People > 200% of Poverty	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>POST SSI</i>	-0.108*** (.018)		-.076*** (.017)		0.081*** (.017)		-.216*** (.056)		-0.374*** (.086)		.284*** (.074)	
<i>PRE MONTHS 5-8</i>		-0.016 (.026)		-0.013 (.021)		0.001 (.026)		0.004 (.075)		-0.048 (.123)		0.057 (.114)
<i>PRE MONTHS 1-4</i>		0.006 (.026)		0.002 (.023)		0.002 (.025)		0.049 (.080)		0.050 (.126)		0.052 (.122)
<i>FIRST WAVE WITH CHILD SSI</i>		-.119*** (.025)		-.102*** (.021)		.066*** (.025)		-.208*** (.074)		-0.410*** (.116)		0.225** (.115)
<i>POST MONTHS 1-4</i>		-.109*** (.026)		-.076*** (.021)		.079*** (.025)		-.186** (.086)		-.370*** (.130)		.301*** (.114)
<i>POST MONTHS 5-8+</i>		-.104*** (.024)		-.067*** (.021)		.090*** (.024)		-.197** (.080)		-.344*** (.123)		.363*** (.109)
<i>R-Squared</i>	0.592	0.592	0.477	0.477	0.662	0.662	0.662	0.662	0.607	0.607	0.670	0.670
<i>Mean, Std. Dev.</i>	.142, .349		.056, .230		.628, .483		.340, .975		.633, 1.626		2.452, 2.122	

Sample consists of all 20949 households from the 1996 and 2001 versions of the SIPP with a child between the ages of 0 and 14 in the first wave of the SIPP and who are still present in wave two. Unit of observation is a household-wave and there are 195871 observations in all cases. All specifications include 20949 household and 21 wave*year fixed effects. The explanatory variable in the odd-numbered columns is equal to one in the first wave that the child is eligible for SSI and in all subsequent waves and is zero otherwise. The even-numbered columns have indicators for the wave of the first SSI enrollment along with two pre and post variables. The dependent variables are an indicator for whether the household is below the poverty line in the wave (specifications 1 and 2), an indicator for being less than 50 percent of the poverty line (3 and 4), the number of children in poverty (5 and 6), the number of children less than 50 percent of poverty (7 and 8), and the number of people less than 50 percent of poverty in the household (9 and 10). Standard errors are clustered by household and included in parentheses.

Table 7: The Impact of Child SSI Enrollment on Health Insurance Coverage

	Number of Children on Medicaid			Number of Children with Health Ins			Number of Children with Priv HI		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>POST SSI</i>	0.099*			0.040			-0.026		
	(.058)			(.047)			(.049)		
<i>POST SSI * 1996 SAMPLE</i>		0.036			0.045			0.058	
		(.081)			(.068)			(.060)	
<i>POST SSI * 2001 SAMPLE</i>		.189**			0.033			-.145*	
		(.082)			(.061)			(.083)	
<i>PRE MONTHS 5-8</i>			-0.018			-0.029			-0.039
			(.067)			(.068)			(.061)
<i>PRE MONTHS 1-4</i>			0.049			-0.002			-0.057
			(.078)			(.066)			(.071)
<i>FIRST WAVE WITH CHILD SSI</i>			.284***			0.104			-0.069
			(.076)			(.066)			(.068)
<i>POST MONTHS 1-4</i>			.214**			0.057			-0.081
			(.085)			(.072)			(.070)
<i>POST MONTHS 5-8+</i>			-0.015			-0.012			-0.035
			(.079)			(.066)			(.068)
<i>R-Squared</i>	0.739	0.739	0.740	0.783	0.783	0.783	0.773	0.773	0.773
<i>Mean, Std. Dev.</i>		0.420, 1.000			1.706, 1.151			1.359, 1.152	

Sample consists of all 20949 households from the 1996 and 2001 versions of the SIPP with a child between the ages of 0 and 14 in the first wave of the SIPP and who are still present in wave two. Unit of observation is a household-wave and there are 195871 observations in all cases. All specifications include 20949 household and 21 wave*year fixed effects. The explanatory variable for the specification summarized in columns 1, 4, and 7 is equal to one in the first wave that the child is eligible for SSI and in all subsequent waves and is zero otherwise. In specifications 2, 5, and 8, this variable is interacted with two dummy variables reflecting each of the survey years. Specifications 3, 6, and 9 have indicators for the wave of the first SSI enrollment along with two pre and post variables. The dependent variables are the average number of children ages 0-17 on Medicaid in the wave (specifications 1 - 3), the average number of children with health insurance (4-6), and the average number of children reporting that they have private health insurance. Standard errors are clustered by household and included in parentheses.

Table 8: Sensitivity of Results to Alternative Control Groups

		All H-holds w/Children (1)	Ever Apply or Receive SSI (2)	Disabled Child 6-14? (3)	Child SSI or Disabled Child 6-14? (4)	Child SSI (5)	Child SSI Switchers (6)
(1)	<i>Household Earnings</i>	-385 (322)	-473 (339)	-340 (659)	-215 (359)	19 (367)	114 (423)
(2)	<i>Any Earnings</i>	0.005 (.016)	-0.006 (.016)	0.010 (.031)	0.005 (.016)	-0.002 (.017)	0.012 (.020)
(3)	<i>Log(Household Earnings)</i>	-0.023 (.043)	-.116** (.045)	-0.049 (.086)	-0.045 (.044)	-.130*** (.050)	-0.090 (.058)
(4)	<i>Total Household Income</i>	1265*** (350)	1131*** (369)	1573** (721)	1495*** (386)	2012*** (409)	1965*** (468)
(5)	<i>Log(Total Household Income)</i>	.198*** (.029)	.169*** (.030)	.221*** (.048)	.205*** (.030)	.232*** (.033)	.227*** (.038)
(6)	<i>Household in Poverty</i>	-0.108*** (.018)	-.085*** (.018)	-.117*** (.035)	-.109*** (.018)	-.117*** (.020)	-.119*** (.023)
(7)	<i>Household < 50% of Poverty</i>	-.076*** (.017)	-.068*** (.017)	-.097*** (.032)	-.083*** (.017)	-.102*** (.018)	-.100*** (.020)
(8)	<i>Household > 200% of Poverty</i>	.081*** (.017)	.053*** (.018)	.087*** (.033)	.076*** (.018)	.068*** (.020)	.067*** (.023)
(9)	<i># of Children in Poverty</i>	-.216*** (.056)	-.158*** (.057)	-.290*** (.112)	-.221*** (.056)	-.229*** (.060)	-.244*** (.067)
(10)	<i># of People in Poverty</i>	-.374*** (.086)	-.270*** (.089)	-.375** (.088)	-.375*** (.088)	-.401*** (.093)	-.430*** (.104)
(11)	<i># of People > 200% of Poverty</i>	.284*** (.074)	.146** (.075)	.286* (.157)	.233*** (.076)	.191** (.084)	.232** (.099)
(12)	<i># of Children with Medicaid</i>	.099* (.058)	.143*** (.057)	0.206 (.141)	.115** (.058)	0.253*** (.062)	0.157*** (.071)
(13)	<i># of Children with Health Insurance</i>	0.040 (.047)	.078* (.048)	0.114 (.112)	0.057 (.048)	0.114** (.051)	0.077 (.061)
(14)	<i># of Children with Private HI</i>	-0.026 (.049)	-0.006 (.049)	0.039 (.115)	0.020 (.049)	0.017 (.052)	0.052 (.063)
	<i># of Households</i>	20949	2715	1727	2215	753	375
	<i># of Observations</i>	195871	26005	17431	22105	7388	3790

Table provides point estimates and standard errors (in parentheses) for the coefficient on POST SSI from specifications analogous to those in the odd-numbered columns of Tables 4-7. Each coefficient estimate reported in the table is from a different specification. Unit of observation in each specification is the household-wave. All specifications include household and wave fixed effects and are weighted using the SIPP household weights in each wave.