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The Impact of Child SSI Enrollment on Household Outcomes: Evidence from the Survey of Income and Program Participation

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ABSTRACT

Between 1989 and 2005 the number of children receiving disability benefits from the Supplemental Security Income (SSI) program in the U.S. increased from 0.26 million to 1.03 million. We utilize longitudinal data from the Survey of Income and Program Participation (SIPP) to estimate the effect of child SSI enrollment on total household income and the separate components of income, including earnings and transfers. The data suggest that child SSI enrollment has little effect, if any, on average household earnings and that it leads to an increase in total household income of roughly the same magnitude as the increase in transfer income. The data further suggest that child SSI participation leads to a significant and persistent reduction in the probability that a child lives in poverty. We also investigate the impact on family structure and health insurance coverage. The data do not suggest an effect on the probability that a child lives with either parent. While children on SSI are eligible for health insurance through Medicaid, the program has little impact on health insurance coverage because most new recipients have health insurance from Medicaid or another source at the time of enrollment. The estimated effects of child SSI enrollment vary substantially depending on whether the household was receiving benefits from the AFDC/TANF program at the time of the SSI award. Our results take on additional significance when one considers that there are now more children living in households with one or more SSI recipients than in households with one or more members on TANF.

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I. Introduction

The federal Supplemental Security Income (SSI) program provides cash assistance to more than seven 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 7.08 million by June 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 1.03 million.

Much of the increase in child SSI participation was precipitated by the February 1990 Supreme 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. The result of the increase in child SSI enrollment, coupled with a significant decline in welfare caseloads, has been a dramatic shift in the provision of cash assistance to low-income families with children in the United States.

In this paper, we investigate the effect of child SSI enrollment on household outcomes such as earnings, poverty, and family structure. While a large body of previous research has estimated the effect of the traditional welfare program known as Aid to Families with Dependent Children (AFDC) on these and other outcome variables, surprisingly little work has explored this same set of issues for SSI.[1] Previous research on SSI receipt among children has focused primarily on its interaction with AFDC (cf. Garrett and Glied (2000), Schmidt and Sevak (2004), and Kubik (1999 and 2003)). Given that a child cannot qualify for benefits from both SSI and AFDC/TANF, and both programs serve children from low-income families, the two programs serve to some extent as substitutes.

Our empirical analyses utilize data from the Survey of Income and Program Participation (SIPP),

[1] The traditional welfare program Aid to Families with Dependent Children (AFDC) was replaced by the Temporary Assistance to Needy Families (TANF) program in 1997. See Blank (2002) and Moffitt (2002 and 1992) for reviews of the AFDC/TANF literature. The one paper of which we are aware that has estimated the effect of child SSI enrollment is Kubik (1999), who investigates the effect on parental labor supply. We discuss this paper below.

which provides detailed information on participation in government expenditure programs. The SIPP has three distinct advantages for our investigation. First, it is the only nationally representative, individual-level data set that differentiates child and adult SSI receipt within the household. This is potentially quite important because adults are more likely than children to be the SSI recipient in households with children that have some SSI payments and because the incentives introduced by the program are very different if a child rather than an adult is receiving SSI payments. Second, the SIPP is longitudinal in nature and allows us to follow the same household over time, thus differencing out any time-invariant unobserved heterogeneity across households. And third, the SIPP is considered to be the most reliable source of individual-level data on participation in government expenditure programs.[2]

We begin by using the SIPP to document the change in the importance of SSI relative to AFDC since the *Zebley* decision. In 1990 children were almost four times more likely (10.8 percent versus 2.8 percent) to live in a household receiving AFDC benefits as in one with an SSI recipient. Eleven years later these rates were approximately equal at 4.9 and 4.8 percent, respectively. Furthermore, given that SSI benefits are more generous than welfare in the typical state, the ratio of SSI to welfare income in households with children increased from 0.26 to 2.08 during this eleven-year period.

We then use the SIPP to investigate the determinants of SSI child participation in order to identify which households were most affected by the growth of the program during the 1990s. Our findings reveal that the probability of SSI receipt is increasing in the number of children and that this effect is significantly stronger for boys than girls. This is not surprising given that administrative data from the Social Security Administration indicate that boys are almost two times more likely than girls to be on SSI. Consistent with previous research, we find that households living in states with less generous welfare benefits are significantly more likely to be on SSI. On other dimensions, the determinants of SSI receipt are quite similar to the determinants of AFDC/TANF participation. For example, children living with just one parent are substantially more likely to be receiving both SSI and AFDC/TANF benefits.

[2] One reason for this 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).

We next exploit the longitudinal nature of the two most recent versions of the SIPP to estimate the effect of child SSI receipt on household outcomes. We focus our investigation on the sample of households who enroll a child on SSI during the survey period and are thus able to estimate changes in household outcomes that occur after the child's SSI enrollment. The key identifying assumption of our identification strategy is that the precise timing of the award of SSI benefits is not correlated with other changes that influence these same outcome variables. This seems defensible for two reasons. First, the vast majority of children who qualify for SSI do so because of a chronic rather than an acute condition. 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 (the two diagnosis categories most likely to result from a discontinuous change in health). Second, there is typically a lag between the initial application for SSI benefits and the eventual award (if one is made), with this lag averaging 4.3 months for applicants under the age of 18.

Our first set of findings demonstrates that the enrollment of a child on SSI leads to an increase in total household unearned income of $1,872 defined over a four-month period.[3] This increase reflects the fact that the increase in SSI income greatly exceeds any offsetting reduction in transfer income from other programs such as AFDC/TANF and food stamps. Furthermore, total household income defined over a four-month period is estimated to increase by an almost identical average of $1,854, or 25 percent. In contrast to previous research (Kubik, 1999), our findings provide little evidence of an economically important effect on measures of labor supply such as total household earnings, the probability of any household earnings, or conditional earnings. This could reflect the program's generous treatment of earnings, which reduces the return to working by much less than did the traditional AFDC program. It is also plausible that the elasticity of labor supply with respect to unearned income is different among parents with disabled children than it would be for other parents exposed to identical program incentives.

Our findings also demonstrate that SSI is effective at reducing child poverty rates. There are two reasons why an increase in household income might *not* translate into a reduction in poverty. First,

[3] Outcomes are defined in the SIPP over a survey "wave", which constitutes a four-month period.

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 be receiving 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. The federal SSI benefit is approximately one-half of the poverty line for a family with just one parent and one child and is an even smaller fraction of the poverty line for larger families.

Our findings demonstrate a statistically significant reduction of 11.4 percentage points in the probability that a household is in poverty following enrollment of a child in SSI. This stems almost entirely 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. Specifically, for each 100 children awarded SSI benefits, the number of children in deep poverty falls by approximately 30.

Because SSI recipients are immediately eligible for health insurance through the Medicaid program, it is plausible that child SSI enrollment leads to an increase in health insurance coverage among children. Our findings provide little evidence to support this contention. While Medicaid coverage does increase substantially among children following SSI enrollment, most of the children who were not already on Medicaid had health insurance from another source.

The final outcome that we consider is family structure. Previous work on the AFDC program has investigated whether the program influences the probability that a child resides with both parents. In the case of SSI, family structure could be affected if the income from SSI reduces emotional stress on the family or if the program simply discourages family formation less than AFDC. Our findings provide little evidence to suggest that the enrollment of a child on SSI influences the probability that he/she lives with one or both parents. 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, health insurance coverage, or family structure.

II. Background

A. The Growth in SSI Participation 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.[4] In its first year, more than 60 percent of the 4.0 million SSI recipients were above the age of 65 and fewer than two percent were under the age of 18. Thirty years later in June 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 number of children receiving SSI increased rapidly after the 1990 Supreme Court decision in *Sullivan v. Zebley*, rising from 264,890 in 1989 to 955,174 just seven years later. This represented an increase from 0.4 to 1.4 percent of all children between the ages of 0 and 17.[5] 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 2004 and Figure 2 plots the percentage of children applying for or awarded SSI through 2003. 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.

This rapid growth in child SSI enrollment ended soon after the passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). As a result of this legislation, the SSA was required 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).[6] Nearly 100,000 children were terminated from the rolls in 1997 (with most deemed "no longer disabled") because of this legislation and

[4] See Daly and Burkhauser (2003) for more details on the SSI program, its history, and a review of the SSI literature.
[5] The fraction of children affected was even higher given that the average child SSI recipient has 1.4 siblings.
[6] The 1996 legislation created a separate definition of disability for children, thus eliminating the requirement in place since the Zebley decision 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. Figure 1C shows that there was a spike in 1997 in the fraction of child SSI recipients who had their benefits suspended for the reason “no longer disabled.” The annual suspension rate has remained substantially higher than the pre-1997 level since the passage of PRWORA.

the number on SSI remained roughly constant during the subsequent three years. But SSI receipt among children started to increase again in 2000, growing by more than 4 percent per year through 2004.

The growth in SSI receipt since the *Zebley* decision has been driven primarily by an increase in the number of children who qualify for the program because of a mental disorder. From 1989 to 2003 the share of children enrolled in SSI with this as their primary diagnosis increased from 50 to 66 percent. Growth in SSI enrollment was also substantially more rapid among boys, who accounted for 59 percent of child SSI recipients in 1989 but 65 percent by 2003.

The expansion of child participation in the SSI program has made it much more important as a source of cash assistance for low-income families with children. In 1989 just prior to the Zebley ruling, 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 point out below, if one accounts for the receipt of SSI income by adults then the receipt of SSI benefits is now more common than TANF receipt among households with children.

B. The Growing Importance of SSI Relative to Welfare: Evidence from the SIPP

In this section we present information on household receipt of SSI and AFDC/TANF income based on data from the SIPP. As noted above, the SIPP is considered to be the most reliable source of individual-level, publicly available data on participation in government programs. The first SIPP was initiated in 1984 and additional ones were launched in each year until 1993. The last two versions of the SIPP started in 1996 and 2001.[8] 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.[9]

[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.

[8] 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).

[9] As with most longitudinal surveys there is some attrition in the SIPP. For example of the 12,533 households in the 1996 SIPP with one or more children under the age of 15 in wave one, 72.3% are still present almost four years later in wave twelve. The Census adjusted household, family, and person weights in each wave of the SIPP to account for differential attrition by observable characteristics.

In Table 1 we summarize data on SSI and AFDC/TANF enrollment from the first wave of the 1990 and 2001 surveys for all households with children under the age of eighteen. Though the 1990 survey does not differentiate adult from child SSI receipt, it is useful to consider data from this survey because it was conducted around the time of the *Zebley* decision before child SSI receipt had increased substantially. As shown in the third row of the table, approximately 10.8 percent of children were in households that received some AFDC income in 1990 while just 2.8 percent had SSI benefits. By 2001, the fraction of children in households with TANF income had fallen to 4.9 percent while the corresponding fraction with some SSI had increased to 4.8 percent. Thus the growth in SSI to some extent offset the decline in the share of households receiving welfare income, with a 5.9 percentage point decline in AFDC/TANF receipt but just a 3.7 percentage point decline (from 12.3 percent to 8.6 percent) in the receipt of benefits from either program. Table 1 also shows that in 1990, average AFDC benefits among AFDC families were substantially greater than average SSI benefits among SSI families. By 2001, the reverse was true, driven in part by the fact that SSI benefit amounts are inflation-adjusted whereas welfare benefits are not.[10] As a result, by 2001, the total amount of SSI benefits disbursed to households with children was more than twice the amount of transfer income from TANF.

The growing importance of SSI relative to AFDC/TANF has led to a convergence across states in the amount of transfer income per child during the past 15 years. Before the *Zebley* ruling, children in states with generous welfare benefits (which tended to be wealthier states[11]) received much more in transfer income than their counterparts in low-benefit states. As Table 2 demonstrates, combined AFDC and child SSI spending per state resident under the age of 18 in the ten most generous states was 2.8 times greater than in the ten least generous in 1989. But by 2003 this ratio had declined to just 1.3, primarily because SSI spends more in poor states whereas the reverse is true for AFDC/TANF. This convergence would be even more pronounced if one accounted for the much greater increase in adult SSI receipt in

[10] Dollar values calculated from the SIPP cited here and elsewhere in the paper are inflation adjusted to 2001 dollars using the Consumer Price Index for all urban consumers (CPI-U).

[11] For example, the average per-capita income in the ten most generous states in 1990 was $20,246 versus $14,621 in the ten least generous.

low welfare benefit states. Thus the net effect of the changing enrollment in the two programs has varied substantially across states, with combined transfer income increasing or remaining roughly constant in low-benefit states such as Alabama but declining sharply in high-benefit states such as California.

C. 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. All SSI recipients are eligible for health insurance through the Medicaid program. Since 1975, the maximum federal SSI benefit has increased with the CPI each year to account for increases in the cost of living. 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. Thus while fifteen states supplement child SSI benefits these supplements account for less than 3 percent of total SSI spending for children.

Individuals generally are 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 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.[12] These numbers

[12] As an example, consider a family in 2005 with two children and one parent that has 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

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 phaseout rate of benefits is 50 percent and thus a parent with two children (one of whom is on SSI) could earn up to $2691 per month ($32,292 per year) before SSI benefits would reach zero.

D. The Interaction between SSI and AFDC/TANF

Unlike SSI, welfare benefits vary substantially across states. In general, families living in low welfare-benefit states have a relatively strong financial incentive to enroll a child on SSI, rather than AFDC/TANF. For example, in 1996 a family with one parent and one child could have received a maximum AFDC benefit of $96 per month in the state of Mississippi versus $490 in the state of California. That same family in Mississippi could have received $470 per month if the child was receiving SSI benefits and the adult no longer received AFDC income. Because California supplemented its benefits the maximum SSI benefit there was $533.40 in the same year. Given that a person cannot receive benefits from both AFDC and SSI, while living in Mississippi this family could increase its transfer income by $374 if the child was awarded SSI benefits while the same family in California would increase its transfer income by just $43.40.[13]

This cross-state heterogeneity in incentives has been the focus of most previous work on child SSI enrollment. Garrett and Glied (2000) find that states with less generous AFDC benefits experienced significantly greater increases in child SSI receipt following the *Zebley* decision. Kubik (1999) investigates whether families were more likely to identify disabilities in their children as a result of Zebley and finds a much stronger effect in states with less generous welfare benefits. Schmidt and Sevak

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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.

[13] The financial incentives are somewhat more complicated for families with two or more children, because these families could receive benefits from both AFDC and SSI. If a child in a family that was on AFDC and had one parent and one other child was awarded SSI benefits, the family's AFDC benefit would fall because the size of the AFDC family unit would fall from three to two. But in 1996 this drop in AFDC benefits would have been much greater in California (from $607 to $490) than in Mississippi (from $120 to $96). See Kubik (1999) and Garrett and Glied (2000) for a detailed description of the net return to SSI receipt for AFDC-eligible families.

(2004) show that families headed by less educated single women were more likely to be receiving SSI if they were in a state that was aggressively pursuing welfare reform.[14] While these papers have all shed important light on the factors influencing the variation across areas and over time in child SSI receipt, there has been very little work estimating the impact of this program on household outcomes. One exception is Kubik (1999), who uses the annual Current Population Survey (CPS) to estimate the effect of child SSI enrollment on parental labor supply. But as we explain below, the CPS is not well-suited for this issue because it does not differentiate between adult and child SSI receipt in the household.

III. Which Households Receive Child SSI Benefits?

Given that SSI is means-tested and has relatively stringent medical eligibility criteria, households with a child enrolled in this program are almost certainly not representative of all households with children. In this section we combine data from the four most recent versions of the SIPP to explore which observable household characteristics are related with program participation. We begin with the 1992 version of the SIPP because it is the first one to differentiate between child and adult SSI receipt.[15] Our unit of observation is the household and we consider the 42,170 households with one or more children under the age of 18 in the first wave of the 1992, 1993, 1996, and 2001 surveys. By focusing on the first wave we consider four months of program participation for each household. In this pooled sample, the percentage of households with a child receiving SSI benefits in one or more months is 1.6 percent while the corresponding share with an adult receiving SSI benefits is 2.6 percent.[16] We estimate the probability that a household has a child enrolled in SSI as a function of household characteristics. Our model is specified as follows, with *j, k,* and *t* indexing households, states, and years, respectively:

[14] Other research has considered the financial incentive that state governments have to shift children from welfare or general assistance onto SSI. See for example Kubik (2003) and Bound et al (1998).

[15] 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.

[16] 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. For example, consider a woman with two children, one of whom herself has a child. This three generation household would typically be treated as two families in the SIPP data. The younger family might have no income but would likely benefit from income received by the other family.

$$
\begin{aligned}
(1) \qquad & AnyChildSSI_{jkt} = \beta_0 + \beta_1 Kids_{jkt} + \beta_2 Boys_{jkt} + \beta_3 MomOnly_{jkt} + \beta_4 DadOnly_{jkt} + \\
& \beta_5 Neither_{jkt} + \beta_6 HSDO_{jkt} + \beta_7 SomeCollege_{jkt} + \beta_8 College_{jkt} + \beta_9 GenAFDC_{jkt} + \\
& \beta_{10} SSISupp_{kt} + \beta_{11} Black_{jkt} + \beta_{12} Hispanic_{jkt} + \theta_t + \varepsilon_{jt}
\end{aligned}
$$

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. The model also controls for the presence of one or more parents in the household, for the education level of the more educated parent (or guardian if no parent is present), and for the race and ethnicity of the children. Finally, we control for the generosity of the state's AFDC/TANF program and for whether the state supplements the federal SSI benefit for children. The variable $GenAFDC_{jkt}$ ranges from 1 to 51 depending on the generosity of the state's AFDC benefit (with 51 and 1 most and least generous, respectively) in year *t* given the number of children and parents in household *j*. The variable $SSISupp_{kt}$ is an indicator that equals one if state *k* supplemented child SSI benefits in year t and zero otherwise.

Table 3 reports the estimated marginal effects from a probit specification of this model. The estimate for β_1 indicates that the likelihood of SSI receipt is significantly positively related with the number of children in a household. Consistent with our prediction, this effect is significantly stronger for boys than for girls, as the estimate for β_2 shows. Children living with two parents are significantly less likely to receive SSI than their counterparts in families headed by one parent or by a guardian that is not the parent, as shown by our estimates for β_3, β_4, and β_5. After controlling for family structure, children with less educated parents are found to be significantly more likely to receive SSI.

The statistically significantly negative estimate of β_9 implies that children living in states with less generous welfare benefits are more likely to receive SSI. The data also indicate that a child is more likely to receive SSI when living in a state that supplements the federal benefit. These results are consistent with previous research suggesting that the two programs are to some extent substitutes (e.g. Garrett and Glied, 2000; Kubik, 1999). The estimates of β_{11} and β_{12} imply that conditional on other

family 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 contrast, columns (3) and (4) present analogous estimates for adult SSI receipt and AFDC/TANF receipt among households with children in the fourth and fifth columns, respectively. For adult SSI 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. 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 family structure, parental education, and the race and ethnicity of the children have a similar relationship with the likelihood of AFDC/TANF 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 families 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

In the next two sections we utilize data from the 1996 and 2001 versions of the SIPP. The earlier surveys do not contain complete information about household SSI receipt for all waves of the survey[17]

[17] There is a variable in the 1992 and 1993 surveys that tells whether a child and/or an adult is enrolled in SSI, but this variable is almost always missing in waves after the first one.

and hence cannot be used in an analysis that relies on the longitudinal nature of the survey. It is important to note that we are therefore focusing on a period that follows the rapid growth in child SSI participation from 1989 to 1996. In addition, we are examining data from the post-welfare reform period.

A. Average Outcomes for Households with Children

Table 4 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. For example, children on SSI are less likely than those on AFDC to live in poverty, with this difference especially pronounced for deep poverty. While 34 percent of households with children on AFDC were below 50 percent of the poverty line, just 6 percent of families with a child on SSI were. These lower poverty rates were to some extent driven by the much higher average earnings among households with a child on SSI. For example in 1996 average earnings were $990 greater ($4,558 versus $3,568) 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.[18] As Table 4 shows, 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.[19]

A third notable difference between the two groups is that the fraction of households with a child on SSI who are *not* receiving food stamps is four times greater (61 versus 15 percent) than the

[18] 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.*

[19] 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.

corresponding share of AFDC/TANF households. This is consistent with the hypothesis that SSI benefits may to some extent crowd out other transfer income. And finally, children on SSI are significantly more likely than to live with both parents. Taking the average of the 1996 and 2001 sample means, approximately 36 percent of households with a child on SSI have both parents present versus just 21 percent of households with AFDC/TANF income.

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 poverty, labor supply, and family structure. 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.[20] This motivates the empirical analyses that follow.

B. Empirical Strategy

To estimate the average effect of child SSI receipt on outcome *Y*, one could estimate a cross-sectional relationship comparing *Y* across households with and without child SSI benefits, conditional on observed household characteristics. In such a regression, the estimated coefficient on the SSI indicator would capture the average difference in *Y* between households with and without child SSI recipients after controlling for other observable household characteristics. However, if there are unobserved household characteristics that are correlated both with SSI receipt and with the outcome variable *Y*, one could not attribute a causal interpretation to any observed difference. For example, the presence of a child in the household who is sufficiently disabled to qualify for SSI would be likely to influence labor supply decisions by one or both parents for reasons other than program benefits or incentives.

The first step we take to overcoming this problem is to limit our analysis sample to households that receive child SSI benefits at some point during the time period covered by the SIPP. Focusing only on these households should reduce the possibility of selection bias because all of these households share the important characteristic of having a child with a disability that is sufficiently severe to qualify for SSI.

[20] 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.

Similarly these families must fall below the federal income and assets limit at the time of the award. 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, 1,023 report the receipt of child SSI benefits in one or more waves. We assume that the 253 households that report child SSI benefits in just one wave that is not the first or the final wave have mistakenly reported their receipt of SSI benefits. These criteria yield a sample of 770 unique households who have a child enrolled a child on SSI at some point during the 1996 and 2001 SIPP surveys.[22]

The second step we take when estimating the impact of child SSI enrollment is to exploit the longitudinal nature of our data. Specifically, we explore whether the enrollment of a child on SSI leads to a discernable shift in family outcomes. Our empirical model controls for household fixed effects to capture any time-invariant differences across households in the sample. However, to attribute a *causal* interpretation to any observed change in outcomes, even conditional on 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. This assumption would not be appropriate for an examination of the effect of AFDC / TANF or many other transfer programs, as a change in economic circumstances would be the likely cause for enrollment in the program. However, 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 itself influence household outcome variables - would change discontinuously at precisely the time that the award is made. Second, the average time from the date of application to the date of award is 4.3 months.

[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] Appendix Figure 1 summarizes the number of households that reported first receiving child SSI benefits in each wave of the two surveys. As the figure shows, the largest number of households was first eligible in wave one, which reflects the fact that the first wave includes the stock of households with a child on SSI rather than the flow of new recipients. The number in each subsequent wave is substantially lower, though the fact that the wave two values are substantially greater than all subsequent waves suggests that some households may have mistakenly reported that they were not receiving child SSI benefits in the first wave.

Thus if a parent submits an application for SSI on behalf of the child because of a change in economic circumstances, a substantial amount of time would elapse before the award would typically be made.

In order to test for shifts in the outcome variables of interest that occur immediately before the receipt of SSI benefits, we restrict attention to those households who enroll a child in SSI after the first wave. This strategy allows us to investigate whether any observed change in household outcome corresponding to SSI enrollment reflects a behavioral response to participation and did not precede enrollment. Of the 770 child-SSI households, approximately half were already enrolled in wave one. There are thus 380 "switchers", defined as households who were not initially receiving child SSI benefits but did in a subsequent wave. Our main estimating equation is specified as follows:

$$(2) \qquad \begin{aligned} Y_{jt} = {} & \beta_0 + \beta_1 I(PRE\ SSI\ 2)_{jt} + \beta_2 I(PRE\ SSI\ 1)_{jt} + \beta_3 I(POST\ SSI\ 0)_{jt} + \\ & \beta_4 I(POST\ SSI\ 1)_{jt} + \beta_5 I(POST\ SSI\ 2+)_{jt} + \mathbf{\Gamma X_{jt}} + \mu_j + \rho_t + \varepsilon_{jt} \end{aligned}$$

in which *j* indexes household and *t* indexes wave.[23] There are 21 wave fixed effects – twelve for the 1996 survey and nine for the 2001 survey. The vector X_{jt} includes the number of individuals in five different age ranges (0-5, 6-11, 12-14, 15-17, and 18 plus years). The model also controls for household fixed effects μ_j, as discussed above, and wave fixed effects ρ_t, to capture any changes over time that are common across households. The explanatory variables of interest are defined in terms of the first wave for which household *j* reports receiving child SSI benefits, which we refer to as the wave of enrollment.

The two variables $I(PRE\ SSI\ 1)_{jt}$ and $I(PRE\ SSI\ 2)_{jt}$ are set equal to one in the wave immediately before and two waves before the first wave of child SSI enrollment, respectively. We include these variables to test for the presence of any pre-existing trends in our outcome variables of interest. The variable $I(POST\ SSI\ 0)_{jt}$ is equal to one in the first wave of SSI enrollment and zero otherwise; $I(POST\ SSI\ 1)_{jt}$ is an indicator variable for the wave immediately following the first wave with child SSI enrollment; and $I(POST\ SSI\ 2+)_{jt}$ equals one in all subsequent waves and zero otherwise. This variable

[23] 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.

remains equal to one even if the child exits the program. We also estimate a modified version of equation (2) which subsumes these three variables into one variable $I(POST\ SSI)_{jt}$, which captures the simple pre-post difference. We prefer the specification described in equation (2) as it gives a picture of the pre-existing trend and also allows us to explore whether effects persist over time. [24]

It is important to note that, even if our identifying assumptions hold, this empirical strategy identifies the average effect of SSI enrollment only for those who participate in the program. This may differ substantially from the corresponding effect for those who are not enrolled. 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. We look first at SSI income. Table 5 presents the results from Ordinary Least Squares (OLS) estimation of equation (2) where Y_{jt} is alternatively defined as any child SSI benefits, any SSI benefits, and total SSI benefits, which is the sum of child and adult benefits received by household members. The results of the linear probability model estimate of equation (2) suggests an increase in the probability of any child SSI benefits of 110 percentage points (standard error of 2.9) in the first period of reported benefits relative to three waves prior (the omitted period). The inclusion of wave effects in the model leads to this slightly misleading estimate of greater than 100 percentage points because the estimated wave effects ($\hat{\mu}_t$) decline from the first to the final

[24] 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.

wave as the average time since the SSI award increases.[25] Note that in this specification, estimated participation in the waves pre-enrollment is statistically significantly greater than zero, albeit the point estimates are only a small fraction of the *post* point estimates. In the wave after the first wave of SSI enrollment, the average participation rate falls to 91 percent and then to an average of 75 percent in subsequent waves, which suggests a non-negligible exit rate from the program.[26]

Columns (3) and (4) present the analogous results for the more inclusive *Any SSI* variable. The estimates reveal a sharp and statistically significant increase in the probability of SSI receipt in the wave that the child first receives SSI benefits. The increase is less than 100 percent because in some households another person was already receiving SSI. The estimated difference in total household SSI income from the wave before enrollment to the wave of enrollment, as shown in column (6), is $2,180, which suggests an increase in SSI income of approximately $545 per month. This is approximately equal to the 2001 federal benefit amount of $531. We have alternatively estimated these equations with the dependent variable defined to include social security child benefits, in case households misreport SSI income as social security income. The results (not shown) are quite similar to those presented here.

We are particularly interested in determining to what extent this substantial increase in SSI transfer income leads to an increase in total household income. To do this, we first investigate the impact of child SSI participation on other transfer income and unearned income more broadly defined. 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. Also, if the increase in SSI income exceeds any reduction in other income then the family's dollar amount of food

[25] Consider a person in wave 12 who first received benefits in wave 3. Their likelihood of SSI receipt will be much smaller than the estimate of $\hat{\beta}_5$ would suggest. In wave 12, there will be a larger fraction of people with $I(POST2+\_SSIK)_{jt}$ equal to one who received their first benefits several waves ago. Thus the estimate for the later wave effects will be negative to account for this higher cumulative rate of attrition by later periods.

[26] The implied exit rate is substantially higher than one would expect given an average duration on the program of approximately five years (approximately one million child SSI recipients divided by 200,000 child SSI awards in a year). This is partly because our estimate calculates the average exit rate of new entrants rather than the exit rate of the stock of participants. If half of new enrollees spent exactly ten years on the program and the other half were enrolled for just a few months, one would observe a large difference between these two exit rates.

stamp transfers would potentially decline as well.

Table 6 reports the results from estimation of equation (2) in which the dependent variable is defined as several different measures of transfer and unearned income. Columns (1) and (2) report the results for total AFDC/TANF income and columns (3) and (4) report the results for *any* AFDC/TANF income. The simple pre-post differences reported in columns (1) and (3) are not statistically significant. The point estimates from the more descriptive specification reported in columns (2) and (4) suggest an increasing amount of offset over time. The point estimates for the change in welfare income in the period of enrollment and immediately after are negative but statistically insignificant. The estimated decrease in total welfare dollars in subsequent waves is $190 and is marginally significant. The point estimates of the change in the probability of any welfare become increasingly negative over time. The data suggest a decrease in the likelihood of AFDC/TANF receipt of -11.8 percentage points (standard error of 5.0) in two or more waves (eight or more months) after enrollment relative to three or more waves before.

Columns (5) through (8) 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 the Women, Infant, and Children (WIC) program. Again, the simple pre-post comparisons of total transfers and any transfers from these two programs, reported in columns (5) and (7) respectively, mask an increasing amount of crowd-out over time shown in columns (6) and (8). There is no discernable reduction in the probability of in-kind transfers from these programs, but the estimated $\hat{\beta}_4$ and $\hat{\beta}_5$ in the specification describing the total dollar amount of food stamp and WIC transfers suggest a substantial crowd-out: a reduction of $154 (standard error of 60) in the wave following enrollment and $205 (standard error of 70) in subsequent waves. However, even considering the reduction in transfers from the Food Stamp and WIC programs, total unearned income (including SSI) is significantly higher following child enrollment in SSI, as demonstrated in columns (9) and (10). A comparison of the point estimates in these two columns with the corresponding ones for total SSI income in Table 5 suggest that each additional $100 in SSI income reduces unearned income from other sources by an average of just $10.

B. Total Household Income and Earnings

In this section we investigate behavioral responses by investigating whether child SSI enrollment influences household earnings. A large body of previous research has investigated comparable effects for the AFDC/TANF program. 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 single women with children and with some household SSI income changed their labor supply as a result of program enrollment.[27] 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. Furthermore, the disincentive to work is much greater if the adult, rather than the child, is the SSI participant. Therefore, Kubik's finding that child SSI receipt reduces labor supply could at least partially reflect the effect of adult SSI enrollment.[28]

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 program or it could reflect the fact that the program's rules do not discourage earnings as explicitly as the rules of pre-reform AFDC. In other words, they may reflect a negative effect of AFDC on earnings rather than a positive effect of SSI. To probe more formally on this issue, we exploit the longitudinal nature of the SIPP to determine whether there is a discernable change in earnings when a child in the household begins to receive SSI benefits.

The unadjusted data on household earnings suggest a modest reduction in total household earnings in response to a child's first receipt of SSI income. The probability that a household has any earnings is statistically indistinguishable in the periods before and after the first wave of SSI receipt,

[27] 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.

[28] As 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.

averaging .721 in the wave immediately preceding enrollment and .730 two waves after enrollment. However, mean and median earnings decline by 7.3 and 6.0 percent, respectively (from $8,107 to $7,513 and $4,839 to $4,551). Changes at higher points in the distribution also suggest a modest decline. For example, the 75th percentile falls by 10.9 percent (from $11,962 to $10,653) and the 90th percentile falls by 6.6 percent (from $21,803 to $20,366). Of course, part of this decline could be driven by changes in composition given that some children are first eligible for SSI in one of the last two waves of the survey and thus we do not have earnings data for them in the "post2" period. The inclusion of household fixed effects in our empirical analyses below will account for this possibility.

The first six columns of Table 7 report the results of OLS estimation of equation [2] where Y_{jt} is defined as total household earnings, an indicator for whether the household has positive earnings, and the natural logarithm of household earnings. The regression-adjusted estimates in the first two columns suggest that there is not a substantial effect on total earnings, as defined in levels. The results from the second specification suggest that earnings decline by an average of $97 per month from the wave immediately before enrollment to the first wave of enrollment. But this decline is much more than offset in the subsequent waves, with earnings increasing by an average of $209 per month in the next wave. While these point estimates are non-trivial, they are not statistically significant.

The specifications summarized in the next two columns test for an effect on the extensive margin of nonzero earnings. The statistically insignificant point estimates of -.012 and -.017 for the $I(PRE\,SSI\,2)_{jt}$ and $I(PRE\,SSI\,1)_{jt}$ indicators provide suggestive evidence of a very small reduction in labor supply in the waves immediately preceding SSI enrollment. But this slight downward trend is reversed after the first wave of SSI enrollment. The estimated coefficients for the first, second, and all subsequent waves are -.009, .003, and .028, respectively, suggesting if anything a slight increase in the probability of earnings. While these estimates are not statistically significant, the difference in point estimates suggests a 4.5 percentage point increase in the probability of nonzero earnings from the wave preceding enrollment to two or more waves after enrollment.

The specification for the log of earnings in column (5) suggests a significant decline in earnings (conditional on being strictly greater than zero). The simple *pre-post* difference reported in column (5) suggests a reduction of 11.9 log points (12.6 percent), which is marginally significant with a standard error of 6.3. This finding is not robust to the more descriptive regression specification that is summarized in column (6). The coefficient estimates for the $I(POST\ SSI\ 0)_{jt}$ and $I(POST\ SSI\ 1)_{jt}$ variables are -0.130 and -0.126, respectively, but neither is statistically significant. The estimate for the $I(POST\ SSI\ 2+)_{jt}$ coefficient is -0.005, which suggests that any reduction in earnings is short-lived. Taken together the results provide little evidence to suggest that the enrollment of a child in the SSI program exerts a substantial impact on labor supply. It is worth emphasizing, however, that because we have just 380 households it would be difficult to detect small but economically important effects.

The absence of a substantial reduction in earnings, coupled with the large increase in total transfer income, would suggest a substantial increase in total household income (which we define to include food stamp and WIC benefits). The regression-adjusted effects reported in the final columns of Table 7 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 $1,854 (standard error of 517), which is almost identical to the corresponding estimate for total unearned income. In the more descriptive equation, we see a positive, but statistically insignificant, increase in income immediately preceding enrollment, and a large jump upward in the period of enrollment. Two or more waves after enrollment, the average change in total household income is $1,977 (standard error of 939). The log specification suggests a 22.2 log point (24.9 percent) increase in total household income in these subsequent waves. These estimates suggest that eight months after a child first enrolls in SSI, a household has an average of approximately $500 per month more in total income relative to eight months prior to program participation. Comparing this estimate to the average child SSI award, these estimates suggest nearly a dollar for dollar increase in household income.

C. Child Poverty

In this section we investigate 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 increased household income nearly dollar for dollar. Despite this, it is possible that the program did little to reduce poverty. First, if children awarded SSI benefits were not initially in poverty then they could not be lifted out of it. Second, if children awarded SSI lived in households with very little income, then the increase in transfer income might not be sufficient to lift them out of poverty.

In Table 8 we report the results for estimation of equation (2) for several different measures of poverty. We first define Y_{jt} as the likelihood that household *j*'s total income in wave *t* is below the poverty threshold; then as the likelihood that household *j*'s total income in wave *t* is below 50 percent of the poverty threshold; then as the number of children in household *j* living below 100 and 50 percent of the poverty threshold; and finally as the number of people in household *j* living below 50 percent of the poverty threshold. The poverty threshold is the census poverty threshold in the particular year (adjusted given that the time period is just four months) and varies by household size. We define the number of children (people) in poverty as the number of children (people) in the household, times an indicator for whether total household income is below the relevant poverty threshold.

The point estimates in column (1) and (2) demonstrate that program participation does substantially lower poverty. Specifically, the regression-adjusted *pre-post* comparison suggests that the probability that a household's income is below the poverty line falls by 11.4 percentage points (standard error of 2.4) 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 13.5 percentage points lower than it is three waves prior to enrollment (standard error of 4.9). 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 ten percentage points following the first receipt of child SSI benefits. Again, the effect appears to be persistent.

In the next four columns we explore the effect of SSI enrollment on the number of children in poverty. This may differ substantially from the household estimates because many child SSI recipients have one or more siblings who are not on the program. Specifications (7) and (8) focus specifically on children who are in deep poverty and reveal that the estimates there are more than three times larger than the corresponding estimates at the household level. Thus for every ten children who are awarded SSI benefits, three children are removed from deep poverty. As before, these effects are persistent, with the point estimate for $I(POST\ SSI\ 2+)_{jt}$ just slightly lower than the estimate for $I(POST\ SSI\ 0)_{jt}$.

Taken together, the findings from this section suggest that the increase in child SSI enrollment since the *Zebley* decision has substantially lowered poverty rates for households with disabled children. Aggregating our estimates to the national level, our findings suggest that there are 232,000 fewer children in deep poverty than there would have been absent the increase since 1989.[29] The increases in household income at other points in the income distribution have also been substantial and thus the ratio of income to poverty has increased substantially for a much larger number of children.

D. Health Insurance Coverage

When a child enrolls in the SSI program, he is automatically eligible for Medicaid. 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.[30] 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

[29] The number of children on SSI increased by 755,000, from .265 million in 1990 to 1.03 million in June of 2005. We multiply this change by the point estimate of -0.303 to arrive at the estimated reduction in child poverty.

[30] 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.

mechanism through which Medicaid enrollment could crowd out other health insurance coverage.[31]

Table 9 presents the results of estimating equation (2) with the dependent variable defined as the number of children on Medicaid, in columns (1) and (2), and the number of children with health insurance, in columns (3) and (4). The simple pre-post comparisons presented in columns (1) and (3) suggest that SSI participation has a statistically significant impact on the number of children covered through the Medicaid program, but not on the number of children with health insurance. The data suggest that for every 100 children who enroll in SSI, an additional 18.5 children enroll in Medicaid. The point estimate for the change in the number of children with health insurance is half as large and not statistically significant. The results from the more descriptive regression model tell a similar story. In the period of enrollment, the point estimate of the change in the number of children on Medicaid is 0.291 (standard error of 0.108), compared to a point estimate of 0.079 in the period prior to enrollment. However, the point estimates decrease in subsequent periods and are not statistically significant. Interestingly, the analogous point estimates for the equation describing health insurance coverage are again roughly half as large and none are statistically significant.

These results suggest that child SSI participation increases the number of children covered by the federal Medicaid program, but only by approximately three children for every ten new SSI recipients. In the wave before child SSI benefits are first received by the households in our sample, 60 percent of children are covered by Medicaid and 82 percent have some form of health insurance. Therefore, the largest impact one might plausibly expect on the number of children with Medicaid coverage is an additional 4 children for every 10 who enroll in SSI. The largest plausible effect on the number of children with health insurance coverage is even smaller, less than 2 children for every 10 who enroll. It is therefore not surprising that SSI's effect on Medicaid enrollment specifically and health insurance

[31] 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 the SSI expansion need not be similar to those associated with the Medicaid expansions as different populations are affected.

coverage more generally is much less than one for one.

E. Family Structure

The final outcomes we consider are the presence of the mother and the presence of the father in the household. There has been much previous work looking at the impact of the AFDC program on family structure. For most of its history, AFDC program eligibility was contingent on the mother being single, and hence the program was widely recognized as implicitly encouraging female-headed households. However, the vast empirical research on the topic has generally found little evidence of an effect of AFDC on family structure (see Moffitt, 1998). An explicit goal of the design of the TANF program was to remove the disincentives to marriage implicit in AFDC and encourage the continuation or formation of two-parent families.[32]

SSI program rules are not explicitly linked to family structure in any way. However, as we have already demonstrated, child SSI participation leads to a large inflow of cash. This could potentially alter family composition. For example, the inflow of cash benefits might make staying in the home more attractive to a father who would otherwise leave the household. Alternatively, it might enable a woman to live without the child's father if she so desired. It is an empirical question as to whether SSI participation increases, decreases, or has no effect on the likelihood that a child lives with either parent. As shown in columns (5) through (8) of Table 9, the data provide little evidence to suggest that enrollment of a child in SSI has a substantial effect on the likelihood of living with either parent. In a companion set of results not summarized in the table, we found little evidence to suggest that the enrollment of a child in SSI influenced the probability that a child lived with neither parent or with both parents.

F. Differential Effects by Previous AFDC/TANF Enrollment

Our final set of analyses compare the effect of child SSI enrollment for families that were

[32] Bitler, Hoynes, and Gelbach (2005) investigate the impact of TANF on the living arrangements of children. This study finds that for black inner-city children welfare reform led to a large reduction in the likelihood of living with an unmarried parent, a large increase in the probability of living with a married parent, and a large increase in the probability of living with neither parent. For Hispanic children, the authors find an increase in the number of adult men in the household and in the probability of living with married parents. Sample size limitations preclude us from conducting a similar investigation of racial and ethnic heterogeneity.

receiving income from the AFDC / TANF program with those who were not. Of the 380 households in our sample, 92 were receiving some AFDC / TANF income in the wave before the first wave of child SSI enrollment. We estimate the more parsimonious specification summarized in the odd-numbered columns of the preceding tables though also interact the *POST* indicator with an indicator for AFDC/TANF receipt in the wave before the first wave of SSI enrollment.[33] Each row in Table 10 represents the results from a different specification. All of the outcome variables that we considered in Tables 8 through 10 are included in this table. Several striking differences are apparent from this table.

First, the coefficient estimates reported in row (3) suggest that households who were not previously on welfare see a reduction in earnings (conditional on positive earnings), while households who were previously on welfare see an increase in earnings (conditional on positive earnings). This finding is potentially very interesting, though not surprising in light of the traditional labor supply model. For households who were previously receiving welfare, the more generous treatment of earnings under the SSI program (compared to AFDC and TANF) would have a positive substitution effect. For those households not previously receiving welfare, both the substitution effect and the income effect would lead to a reduction in labor supply.

Second, the proportional increase in household income following child SSI enrollment is statistically significantly greater for households previously receiving welfare, as reported in column (5). This no doubt partly reflects the fact that households receiving welfare benefits at the time of the SSI enrollment are likely to have much lower incomes. Third, there are particularly striking differences in the estimated effects on child poverty, reported in rows (6) and (7). The data suggest that the percentage point reduction in poverty is three times larger for AFDC/TANF households than for households not previously receiving welfare income (23.4 percentage points compared to 7.6 percentage points). The differences for the number of children or individuals in deep poverty is even more striking, with the implied effect four times greater for the AFDC/TANF sample. Presumably some of this reflects the larger

[33] We do not separately include this AFDC/TANF indicator because it does not vary within a household and will therefore be subsumed in our household fixed effects. If household j is receiving AFDC/TANF in the wave before the first wave of child SSI enrollment then we set this indicator equal to one for all of that household's observations.

family sizes of households with AFDC/TANF income.

And finally, there is a statistically significant increase in the probability of Medicaid coverage (row (11)) and health insurance coverage in general (row (12)) for households not previously enrolled in AFDC/TANF. This is not true for households who were previously on welfare. The results presented in row (13) potentially suggest heterogeneous effects for family structure, with the probability that AFDC/TANF children live with their mother falling by approximately 5 percentage points after the first wave of SSI enrollment, though this estimate is only marginally significant.

VI. 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 maintaining the material well-being of low-income families with children over the 1990s. Our analysis of household-level SIPP data finds that child SSI participation increases total household income by an average of approximately $500 per month, or 25 percent. This is accomplished by an increase in total transfer income that does not appear to reduce average earnings by a substantial amount.

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 11.4 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, 45 people are lifted out of severe poverty. Furthermore, the data suggest that the increase in household income and reduction in poverty are most pronounced for households that were previously receiving welfare income.

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.[34]

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 from the households who do enroll a child in the program, the results here may 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. Second, because the SIPP includes only 3-4 years of longitudinal data for our analysis sample, 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). But 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 13.1percent from 2000 to 2004 while SSI receipt among children increased by 17.3 percent during the same period. Thus more work to understand the effect of the Supplemental Security Income program is clearly warranted.

[34] 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.

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Figure 1: Percentage of Children Ages 0-17 Enrolled in SSI: 1985-2004

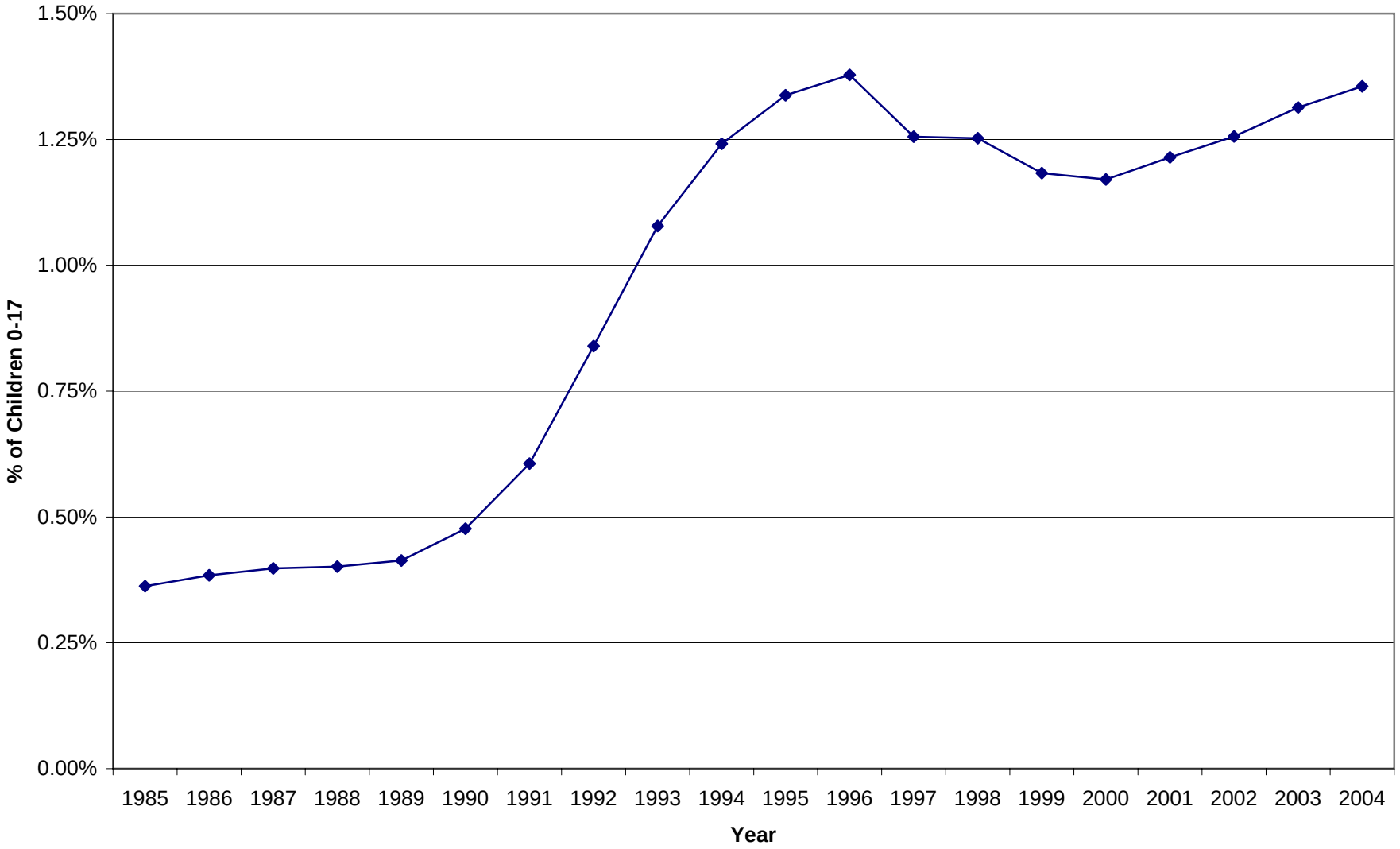

Figure 2: Percentage of Children Applying for or Awarded SSI 1985-2003

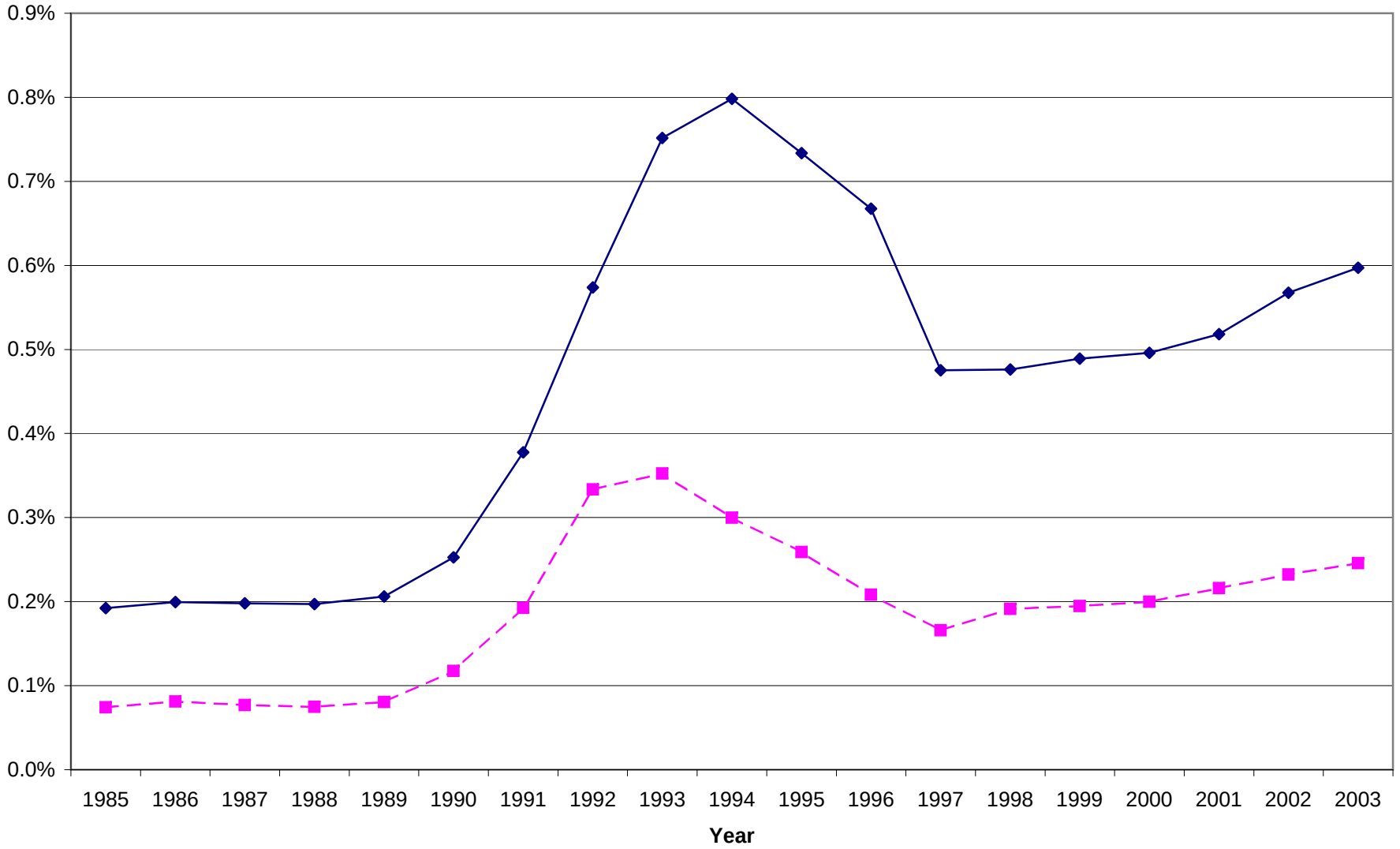

Table 1: AFDC and SSI Receipt among Households with Children: 1990 and 2001 SIPP Wave 1

	1990 SIPP			2001 SIPP		
	AFDC	SSI	None	TANF	SSI	None
# Households	808	217	7583	546	612	11878
Weighted % of Households	8.6%	2.5%	89.9%	3.9%	4.4%	92.6%
Weighted % of Children	10.8%	2.8%	87.7%	4.9%	4.8%	91.4%
Avg # Kids 0-17	2.36	2.15	1.84	2.40	2.06	1.87
Avg # Adults 18-64	1.66	2.27	2.06	1.78	2.15	2.03
Avg # Adults 65+	0.06	0.24	0.03	0.07	0.18	0.04
Avg H-Hold Earnings	$2,389	$5,559	$16,657	$3,238	$6,866	$19,392
Avg Total H-Hold Income	$5,301	$9,951	$18,222	$5,716	$10,996	$20,684
% with Any SSI	11.4%	100.0%	0.0%	22.2%	100.0%	0.0%
% with Any AFDC / TANF	100.0%	39.5%	0.0%	100.0%	19.4%	0.0%
Avg SSI Income	$237	$1,866	$0	$520	$2,216	$0
Avg AFDC / TANF Income	$2,047	$816	$0	$1,202	$204	$0
Poverty Ratio 0-49%	35.9%	6.1%	3.1%	34.0%	9.2%	4.2%
Poverty Ratio 50-99%	40.6%	36.2%	6.3%	34.1%	26.2%	7.5%

Table summarizes information for all households with one or more children in the first wave of the 1990 and 2001 Survey of Income and Program Participation. SSI and AFDC columns include data for families with some benefits from the SSI and AFDC/TANF programs, respectively, during the four-month period of interest. The third column for each year summarizes information for families with benefits from neither program. Dollar figures are adjusted to 2001 dollars using the CPI-U. Household data is weighted using the SIPP household weights to account for non-random sampling.

Table 2: AFDC/TANF and SSI Child Expenditures per Resident Child

	AFDC/TANF		SSI Child		Total	
Rank Generosity of AFDC	1989	2003	1989	2003	1989	2003
Quintile 1	$183	$78	$39	$125	$222	$203
Quintile 2	$192	$64	$23	$79	$215	$143
Quintile 3	$249	$68	$20	$54	$269	$122
Quintile 4	$389	$167	$21	$77	$411	$244
Quintile 5	$591	$199	$23	$70	$614	$269

Figures represent annual spending on AFDC/TANF and SSI child benefits per resident child between the ages of 0 and 17 in each year. States are sorted by the generosity of their welfare benefits for a family of three in 1990, with quintile 1 being the least generous. Expenditures are inflation-adjusted to 2003 dollars using the CPI-U.
Source: Social Security Administration *Annual Statistical Supplement*, 1990 and 2004; *Green Book: Overview of Entitlement Programs.* 1996

Table 3: Determinants of SSI & AFDC / TANF Receipt among Families with Children

	(1) Mean	(2) Child SSI	(3) Adult SSI	(4) AFDC / TANF
Number of Children 0-17	1.92	0.0034***	0.0011	0.0136***
	(1.02)	(.0006)	(.0007)	(.0010)
Number of Boys 0-17	0.98	0.0013*	-0.0006	0.0003
	(0.87)	(.0007)	(.0010)	(.0013)
Mom Only Present	0.239	0.0090***		0.0750***
	(.422)	(.0014)	(.0015)	(.0055)
Dad Only Present	0.034	0.0067**	0.0107***	0.0220***
	(.177)	(.0030)	(.0027)	(.0044)
Neither Mom nor Dad Present	0.038	0.0096***	0.0264***	0.0541***
	(.179)	(.0022)	(.0024)	(.0057)
Less than High School Graduate	0.102	0.0094***	0.0222***	0.0465***
	(.302)	(.0019)	(.0034)	(.0048)
Some College	0.319	-0.0036***	-0.0104***	-0.0160***
	(.466)	(.0009)	(.0015)	(.0024)
College Graduate	0.289	-0.0088***	-0.0160***	-0.0455***
	(.453)	(.0014)	(.0013)	(.0040)
AFDC / TANF Rank 1-51	25.5	-1.7E-4***	-4.7E-5	8.4E-4***
	(15.7)	(5.6E-5)	(1.2E-4)	(1.6E-4)
State SSI Supplement for Kids	0.368	0.0034**		-0.0006
	(.482)	(.0016)		(.0054)
State SSI Supplement for Adults	0.453		0.0067**	
	(.498)		(.0033)	
Black	0.156	.0075***	0.0159***	0.0295***
	(.362)	(.0009)	(.0024)	(.0034)
Hispanic	0.122	-0.0013	0.0004	0.0053
	(.326)	(.0021)	(.0038)	(.0066)
Year = 1993	0.241	0.0022	0.0020	0.0017
	(.427)	(.0015)	(.0028)	(.0025)
Year = 1996	0.245	0.0070***	0.0108***	-0.0022
	(.429)	(.0020)	(.0026)	(.0028)
Year = 2001	0.251	0.0071***	0.0120***	-0.0308***
	(.433)	(.0022)	(.0030)	(.0027)
Sample size	42,170	41,355	41,355	41,355
Mean of Dep Var	-	0.0156	0.0258	0.0849
Pseudo R-squared	-	0.1134	0.0984	0.3186

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 4: Households w/Children and with AFDC/TANF, SSI Child, and/or SSI Adult Benefits

	1996 SIPP			2001 SIPP		
	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	$4,558	$6,565	$3,568	$6,031	$7,141	$3,238
Avg Total H-Hold Income	$8,732	$11,077	$6,363	$10,254	$11,573	$5,716
% 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	$2,588	$2,276	$370	$2,632	$2,347	$520
Avg AFDC / TANF Income	$506	$480	$1,617	$136	$228	$1,202
Avg Food Stamp Income	$428	$459	$979	$232	$329	$774
Avg Social Security - Adult	$384	$832	$235	$455	$771	$276
Avg Social Security - Kid	$180	$174	$64	$239	$152	$62
All Other Income	$516	$750	$509	$761	$934	$418
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%

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 2001 dollars using the CPI-U. Household data is weighted using the SIPP household weights to account for non-random sampling.

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

	Any Child SSI		Any SSI		Total Household SSI	
	(1)	(2)	(3)	(4)	(5)	(6)
POST SSI	0.919***		0.746***		2081***	
	(.019)		(.029)		(116)	
PRE SSI 2		0.086***		0.118***		293***
		(.018)		(.027)		(97)
PRE SSI 1		0.086***		0.152***		331***
		(.024)		(.031)		(98)
POST SSI 0		1.101***		0.928***		2511***
		(.029)		(.038)		(165)
POST SSI 1		0.908***		0.818***		2280***
		(.042)		(.046)		(182)
POST SSI 2+		0.752***		0.693***		1815***
		(.051)		(.058)		(192)
R-Squared	0.633	0.669	0.601	0.625	0.596	0.610
Mean, Std. Dev.	.388, .487		.531, .499		1313, 1797	

Sample consists of all 380 households from the 1996 and 2001 versions of the SIPP with a child first eligible for SSI benefits in wave 2 or later. Unit of observation is a household-wave and there are 3843 observations in all cases. All specifications include 380 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 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 6: The Impact of Child SSI Enrollment on Other Sources of Unearned Income

	Total Welfare Income		Any Welfare Income		Food Stamps + WIC		Any FS or WIC		Total Unearned Income	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
POST SSI	-35		-0.030		-87**		-0.019		1872***	
	(37)		(.023)		(35)		(.026)		(237)	
PRE SSI 2		-21		-0.005		-7		0.043		223
		(48)		(.026)		(40)		(.027)		(244)
PRE SSI 1		-86		-0.031		-56		0.053		527**
		(64)		(.032)		(47)		(.034)		(243)
POST SSI 0		-58		-0.027		-72		0.049		2489***
		(60)		(.036)		(56)		(.040)		(339)
POST SSI 1		-89		-0.054		-154**		0.003		2058***
		(90)		(.044)		(60)		(.046)		(388)
POST SSI 2+		-190*		-0.118**		-205***		-0.042		1467***
		(110)		(.050)		(70)		(.053)		(443)
R-Squared	0.618	0.620	0.612	0.615	0.623	0.625	0.655	0.658	0.630	0.635
Mean, Std. Dev.	303, 765		.212, .409		439, 644		.490, .500		4267, 4033	

Sample consists of all 380 households from the 1996 and 2001 versions of the SIPP with a child first eligible for SSI benefits in wave 2 or later. Unit of observation is a household-wave and there are 3843 observations in all cases. All specifications include 380 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 total AFDC/TANF income (specifications 1 and 2), an indicator for any AFDC/TANF income (3 and 4), total food stamp and WIC benefits (5 and 6), any food stamp or WIC benefits (7 and 8), and total unearned income (9 and 10). Standard errors are clustered by household and included in parentheses.

Table 7: The Impact of Child SSI Enrollment on Earnings and Household Income

	Household Earnings		Any Earnings		Log(Earnings)		Total H-Hold Income		Log(Total H-Hold Income)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
POST SSI	-18		0.012		-0.119*		1854***		0.212***	
	(455)		(.021)		(.063)		(517)		(.041)	
PRE SSI 2		97		-0.012		0.047		320		0.049
		(523)		(.022)		(.064)		(559)		(.042)
PRE SSI 1		7		-0.017		-0.018		534		0.011
		(476)		(.025)		(.071)		(527)		(.050)
POST SSI 0		-381		-0.009		-0.130		2108***		0.239***
		(594)		(.031)		(.088)		(676)		(.054)
POST SSI 1		454		0.003		-0.126		2512***		0.228***
		(845)		(.035)		(.112)		(912)		(.062)
POST SSI 2+		509		0.028		-0.005		1977**		0.222***
		(860)		(.041)		(.113)		(939)		(.071)
R-Squared	0.720	0.720	0.683	0.683	0.661	0.662	0.699	0.699	0.662	0.662
Sample size	3,843	3,843	3,843	3,843	2,850	2,850	3,843	3,843	3,830	3,830
Mean, Std. Dev.	8327, 10656		.746, .436		8.884, 1.061		12594, 11126		9.149, 0.789	

Sample consists of all 380 households from the 1996 and 2001 versions of the SIPP with a child first eligible for SSI benefits in wave 2 or later. Unit of observation is a household-wave and there are 3843 observations in all cases. All specifications include 380 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 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 included in parentheses.

Table 8: The Impact of Child SSI Enrollment on Poverty

	In Poverty		< 50% of Poverty		Number of Children in Poverty		Number of Children < 50% of Poverty		Number of People < 50% of Poverty	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(5)	(6)
POST SSI	-0.114***		-0.098***		-.248***		-.303***		-0.445***	
	(.024)		(.021)		(.070)		(.077)		(.108)	
PRE SSI 2		-0.025		-0.030		0.012		-0.100		-0.138
		(.029)		(.024)		(.085)		(.076)		(.114)
PRE SSI 1		-0.004		-0.016		0.054		-0.038		-0.066
		(.031)		(.026)		(.094)		(.088)		(.125)
POST SSI 0		-0.132***		-0.119***		-0.239**		-0.370***		-0.547***
		(.036)		(.028)		(.099)		(.108)		(.147)
POST SSI 1		-0.109***		-0.111***		-.189		-.342***		-0.506***
		(.040)		(.033)		(.125)		(.124)		(.174)
POST SSI 2+		-0.135***		-0.110***		-0.197		-.321**		-0.466**
		(.049)		(.037)		(.150)		(.129)		(.186)
R-Squared	0.556	0.556	0.391	0.391	0.679	0.679	0.460	0.461	0.447	0.448
Mean, Std. Dev.	.345, .475		.118, .322		.964, 1.587		.341, 1.084		.535, 1.601	

Sample consists of all 380 households from the 1996 and 2001 versions of the SIPP with a child first eligible for SSI benefits in wave 2 or later. Unit of observation is a household-wave and there are 3843 observations in all cases. All specifications include 380 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 9: The Impact of Child SSI Enrollment on Health Insurance Coverage and Family Structure

	Number of Children on Medicaid		Number of Children with Health Insurance		Living with Mother		Living with Father	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
POST SSI	0.185**		0.089		-0.005		-0.004	
	(.073)		(.064)		(.014)		(.014)	
PRE SSI 2		0.035		0.014		0.013		-0.003
		(.083)		(.077)		(.011)		(.020)
PRE SSI 1		0.079		0.040		0.006		-0.022
		(.094)		(.083)		(.017)		(.025)
POST SSI 0		0.291***		0.145		0.001		-0.019
		(.108)		(.095)		(.019)		(.027)
POST SSI 1		0.183		0.072		0.005		-0.014
		(.129)		(.115)		(.024)		(.030)
POST SSI 2+		0.143		0.092		0.003		-0.010
		(.134)		(.117)		(.028)		(.035)
R-Squared	0.684	0.685	0.714	0.714	0.844	0.844	0.855	0.855
Mean, Std. Dev.	1.48, 1.48		2.04, 1.40		.845, .322		.432, .470	

Sample consists of all 380 households from the 1996 and 2001 versions of the SIPP with a child first eligible for SSI benefits in wave 2 or later. Unit of observation is a household-wave and there are 3843 observations in the first four specifications and 3781 in the next four (because the fraction is missing if the number of children is zero). All specifications include 380 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 the number of children ages 0-17 on Medicaid in the wave (specifications 1 and 2), the number of children with health insurance (3 and 4), the fraction of children in the household living with their mother (5 and 6), and the fraction of children in the household living with their father (7 and 8). Standard errors are clustered by household and included in parentheses.

Table 10: The Effect of SSI Enrollment by AFDC/TANF Status

		POST SSI	POST SSI * AFDC/TANF	R-squared
(1)	*Household Earnings*	-131 (519)	465 (637)	0.720
(2)	*Any Earnings*	0.008 (.022)	0.016 (.043)	0.683
(3)	*Log(Household Earnings)*	-.171** (.066)	.356*** (.132)	0.663
(4)	*Total Household Income*	1800 (587)	223 (655)	0.699
(5)	*Log(Total Household Income)*	.184*** (.045)	.115* (.061)	0.662
(6)	*In Poverty*	-.076*** (.025)	-.158*** (.047)	0.559
(7)	*< 50% of Poverty*	-.065*** (.022)	-.136*** (.049)	0.396
(8)	*Number of Children in Poverty*	-.180** (.075)	-.284** (.144)	0.680
(9)	*Number of Children < 50% of Poverty*	-.180** (.074)	-.510** (.201)	0.467
(10)	*Number of People < 50% of Poverty*	-.264** (.106)	-.753*** (.271)	0.453
(11)	*Number of Children on Medicaid*	.259*** (.078)	-.323** (.144)	0.690
(12)	*Number of Children with Health Insurance*	.153** (.070)	-.299*** (.111)	0.717
(13)	*Fraction of Children Living with Mother*	0.005 (.012)	-.050* (.030)	0.851
(14)	*Fraction of Children Living with Father*	-0.007 (.017)	0.013 (.030)	0.854

Sample consists of all 380 households from the 1996 and 2001 versions of the SIPP with a child first eligible for SSI benefits in wave 2 or later. Unit of observation is a household-wave and there are 3,843 observations in all specifications except for (13) and (14), which have 3,781. Each row presents coefficient estimates on the two explanatory variables of interest from estimation of the analysis regression for the particular dependent variable listed. All regression specifications include 380 household and 21 wave*year fixed effects. Standard errors are adjusted for clustering at the household level and are included in parentheses.

Appendix Figure 1: First Wave of Child SSI Receipt in the SIPP