

**THE SURVEY OF INCOME AND
PROGRAM PARTICIPATION**

**PROGRAM PARTICIPATION
AND CHILD WELL-BEING**

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Abstract

This study compares the well-being of low-income children who receive assistance from TANF and SNAP to their low-income, non-recipient counterparts. Two dimensions of child well-being are examined – educational development and health. Educational development is measured by (1) participation in extracurricular activities and (2) having positive attitudes towards school. Health is measured by (1) being in excellent or very good health and (2) having seen a doctor at least once in the 12 months prior to interview. One goal of this paper is to determine whether program participant children have better, similar, or worse well-being than non-participants. Results show that SNAP participants are less likely to participate in extracurricular activities, to have positive attitudes towards school, and to be in excellent or very good health. TANF and SNAP participation are associated with greater odds of having seen a doctor in the past 12 months. A second goal of this paper is to explore whether program participation differences in child well-being are explained by differences in average income-to-poverty ratio, race, nativity, parental characteristics, and household characteristics. Program participation differences remain significantly related to child well-being; however, parental characteristics explain away the effect of SNAP on the odds of having positive attitudes towards school.

Introduction

Public assistance programs such as Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP) were designed to assist low-income families with children.¹ TANF provides cash assistance to eligible families. This money can be used for any purpose, but, in theory, it should help to provide basic necessities to children in low-income families. SNAP offers eligible families an electronic benefit transfer (debit card) that can be used only to purchase food items.² SNAP benefits should free up money that would otherwise be spent on food, increasing the amount of money to be spent on other items that may benefit children (Currie 1997).

The overall goal of these programs is to provide financial assistance to families with children, which should, in turn, lead to better child well-being. There are several hypothesized associations between program participation and child well-being. First, the neediest families are the ones to receive programs; thus, child well-being is worst in these families. Second, program participants are worse off than non-participants are, but program assistance helps to put them on par with non-participant families. Finally, program participation improves the well-being of children – putting them a step above low-income non-participants.

This paper investigates whether program participation is associated with better or poorer child well-being using the 2004 and 2008 Panels of the Survey of Income and Program Participation (SIPP). Two measures of educational development and two measures of health are examined. Aside from examining the impact of program participation on child well-being, this paper determines whether differences in child well-being by program participation status are the

¹ TANF replaced Aid to Families with Dependent Children (AFDC) in 1996 with the passage of the Personal Responsibility Work Opportunity Reconciliation Act of 1996 (PRWORA). The Food Stamps program was renamed SNAP in 2008.

² Households cannot use SNAP benefits to purchase alcohol, cigarettes, nonfood items such as dog food or household supplies, vitamins and medicines, foods that will be eaten in the store, or hot foods.

result of differences in income-to-poverty ratios, race and nativity status, and other parental and household characteristics.

Background

There are at least two ways in which program participation may affect child well-being (Hofferth, et al. 2000). First, program participation is related to the resources available to families. Low-income families have fewer resources available to invest in their children compared to higher income families. Among low-income families, the availability of funds from cash (i.e., TANF) and in-kind (i.e., SNAP) assistance programs should increase the availability of resources to invest in children – leading to improved child well-being (Currie 1997). Second, the characteristics of program participant adults and families may differ from those of non-participants in ways such as parental IQ levels, mental and physical health, and in levels of initiative (Driscoll and Moore 1999; Hofferth, et al. 2000). These differences may manifest themselves through differences in parental education, parental employment, family structure, and household size. Thus, program participant children may have poorer well-being because they are more disadvantaged.

The effects of program participation on child well-being are mixed. Some research suggests that the money received from welfare programs has the same effect on well-being as money from any other source (Currie 1997). There is some evidence, for example, that food stamps are associated with increased food expenditures and better nutrition (Devaney, Ellwood, and Love 1997), and better nutrition may, in turn, be associated with better cognitive abilities (Currie 1997; Frongillo, Jyoti, and Jones 2006).

Yet, in some cases, program participation is associated with poorer well-being. Research prior to the passage of PRWORA – also known as welfare reform – examined the effects of

program participation on children's well-being largely out of concerns that welfare recipient children had few prospects and would become financially dependent as adults (Zill, et al. 1995). Compared to non-poor children, children that received AFDC were less likely to be in excellent health and to have vocabulary scores at or above the 50th percentile (Zill, et al. 1995). AFDC participation was also associated with fewer years of completed schooling (Duncan and Yeung 1995; Ku and Plotnick 2003).

Less research evaluated the effects of welfare participation among children of similar income levels (Hofferth, et al. 2000). The existing research suggests little difference in the well-being of children who received AFDC and those who did not among children with similar income levels. For example, Zill, et al. (1995) found that low-income participants and non-participants fared similar on measures of health, behavior problems, and learning problems.

Since welfare reform, there has been less research on the effects of welfare on child well-being. The bulk of the literature has examined the effects of mothers' employment on children's well-being (Czapanskiy 2002; Zaslow, et al. 2002). Nonetheless, changes made by welfare reform may affect children in many ways. Welfare reform placed emphasis on family formation, established stronger child support laws, and increased funding for childcare – which, presumably, should improve child well-being. Yet, this legislation also restricted access to assistance in many ways (Greenberg, et. al. 2002). Most notably, welfare reform “placed more stringent work requirements and time limits on federal TANF cash assistance,” “delinked Medicaid from welfare receipt,” and “restricted eligibility for food stamps among some groups” (pp. 29).

The emphasis on work and heightened restrictions has often meant that the families that continue to receive assistance are often extremely disadvantaged in many ways – including

having one or more serious barriers to employment (Greenberg, et al. 2002). Accordingly, program participation may have negative effects on child well-being because those who participate in assistance programs are more disadvantaged than are non-participants.

The goal of this paper is to determine the effects of program participation on child well-being. If program participation gives poor families a financial boost, then program participation should be positively associated with child well-being. However, if program participants are disadvantaged compared to non-participants, program participation may simply be putting participants on par with low-income non-participants. If program participants have poorer well-being than non-participants do, then it may be the case that participants are disadvantaged compared to non-participants and program participation is not enough to help level the playing field.

Another goal of this paper is to determine if factors such as average income-to-poverty ratios, race, nativity, parental characteristics, and household characteristics explain any of the association between program participation and child well-being. If program participants come from disadvantaged families – in terms of, for example, mother's education, mother's employment, family structure, household size, tenure status, or vehicle ownership – I expect the association between program participation and child well-being to diminish. If program participation remains significantly related to child well-being after these parental and household characteristics are taken into account, then further research will be necessary to determine whether program participation itself affects child well-being or whether factors other than those explored in this paper are accountable for the differences.

Based upon the previous review of the literature, the following research questions are addressed in this paper:

1. Among low-income children, is program participation associated with better, poorer, or similar levels of child well-being?
2. Are differences in child well-being by program participation status explained by differences in income, race, nativity status, parental characteristics, or household characteristics?

Data

Data for this analysis come from the 2004 and 2008 Panels of the Survey of Income and Program Participation (SIPP).³ The population represented in SIPP is the civilian, noninstitutionalized population living in the United States. This longitudinal survey follows the same individuals over time. The 2004 SIPP Panel followed the same individuals over a period of 48 months from October 2003 to December 2007. The 2008 SIPP Panel is scheduled to follow the same individuals over a period of 68 months from May 2008 to March 2014. SIPP is conducted in waves of 4 months duration, with one-quarter of sampled households interviewed in each month of a wave. Sample members are asked about activities during the 4 months prior to the interview, which is the “reference period.”

SIPP’s core questionnaire collects demographic, employment, and program participation data from all individuals 15 and older in selected households. A parent or guardian (usually the mother) provides certain information about those under age 15 living in the household. The core questionnaire is repeated at each wave. Additionally, at each wave of interview, a topical module questionnaire is administered. The content of the topical modules vary across each wave of interview. These questions are designed to provide more in-depth information about a particular topic, such as children’s well-being, fertility history, and health and disability. These

³ Data are subject to error arising from a variety of sources. For information on sampling and nonsampling error see the following: http://www.census.gov/sipp/sourceac/S&A04_W1toW12%28S&A-9%29.pdf and http://www.census.gov/sipp/sourceac/S&A08_W1toW6%28S&A-13%29.pdf.

questions are not asked at every wave of interview, and most topical module questionnaires are administered only once during the lifespan of a SIPP panel.

To provide a more thorough picture of a household's demographic and economic circumstances, this analysis uses data collected from the core questionnaire in Waves 1-3 of the 2004 SIPP and Waves 2-4 of the 2008 SIPP. Additionally, this analysis makes use of data from the medical expenses, real estate, and child well-being topical modules, which were administered in Wave 3 of the 2004 SIPP and Wave 4 of the 2008 SIPP. These topical modules provide in-depth health and educational development indicators of child well-being, indicators of parent-child interaction, and a question about whether anyone in the household owns a car. For both the child well-being and medical expenses topical modules, the designated parent, who is usually the mother, was asked a set of questions about each child in the household. Data from the topical modules and core questionnaires for each child are merged into a single record, which includes longitudinal information on household income, program participation, and parental characteristics (e.g., employment) – for the 12 months prior to the topical module interview – in addition to cross-sectional educational and health outcome indicators. The 12-month period prior to the topical module interview is referred to as the “reference year.”

The longitudinal aspect of SIPP is a major strength of these data. Another strength of these data is the availability of monthly income, program participation, and employment data, since these states are not constant over time. Furthermore, SIPP data are ideal for this analysis because information on every household member is available – allowing for mother's characteristics to be merged onto the child's record. Finally, other longitudinal datasets such as the Panel Study of Income Dynamics (PSID) are based on children who are born in the late-1960s and early-1970s. Accordingly, these datasets are not representative of Hispanic and

immigrant children – two of the most rapidly growing groups of children in the U.S. (Corcoran and Chaudry 1997; Lewit, Terman, and Behrman 1997). SIPP provides a more recent, representative cohort of children. The major drawback of SIPP data is that the child educational and health indicators are self-reported by the mother of the child, and there is no way to verify the accuracy of her responses.

I capture educational development and health outcomes with the following variables taken from topical module data in SIPP. The education development variables come from the child well-being topical module. The first is a measure of participation in extracurricular activities. This behavioral indicator captures whether the child is on a sports team either in or out of school; takes lessons after school or on weekends in subjects like music, dance, language, computers, or religion; or participates in any clubs or organizations after school or on weekends. The reference group is children who do not participate in any of the above listed activities. The second measure of educational development determines whether the child has positive attitudes towards school. This attitudinal indicator captures whether the responding adult reported that it is “often true” that the child likes to go to school, is interested in schoolwork, and works hard at school. The reference category includes those who responded with “sometimes true” or “not true” to one or more of these items.

The health outcome variables come from the medical expenses topical module. The first, an attitudinal indicator, captures whether the responding parent reported that the child’s health status is “excellent” or “very good health,” as opposed to “good,” “fair,” or “poor.” The second health outcome is a behavioral indicator and captures whether the child or anyone else saw or talked to a medical doctor, or nurse, or other medical provider about the child’s health at least

once in the past 12 months.⁴ Those who saw a doctor one or more times are compared to those who did not see a doctor in the past 12 months.

The primary independent variables of interest are measures of program participation. Two program participation variables are used in the analyses. TANF and SNAP measure whether anyone in the child's family received these types of assistance in four or more of the past 12 months.

The analysis includes additional independent variables to determine if these factors explain program participation differences in child wellbeing. Household income is measured as the average household monthly income-to-poverty ratio across the reference year. The income-to-poverty ratio is equal to total household income divided by the poverty threshold for their household size.⁵ Values less than 1.0 indicate that the household is in poverty, while values greater than or equal to 1.0 indicate that the household is not in poverty. For this paper, the sample is limited to those with ratios less than 1.3 – who are considered low-income. In the analyses, income is measured as a set of dummy variables. The reference group is those with average income-to-poverty ratios less than 0.5. The second group includes those with average income-to-poverty ratios greater than or equal to 0.5 but less than 1.0. The final group consists of children whose average income-to-poverty ratio is greater than or equal to 1.0 but less than 1.3.

Four racial/ethnic groups are included in this analysis: Whites (reference group), Blacks, Asians, and Hispanics. Nativity status is measured using the status of the child's mother. The children of native-born mothers are compared to the children of foreign-born citizen and foreign-born noncitizen mothers.

⁴ Contacts during hospital stays are excluded from this measure.

⁵ For details of poverty definition and thresholds, visit U.S. Census Bureau's Poverty Website at www.census.gov/hhes/www/poverty/poverty.html.

Mother's education is measured as a set of dummy variables: less than a high school degree (reference group), high school degree, some college, or bachelor's degree or higher. Employment of the child's mother is determined by whether she worked full-time in at least four of the past 12 months. Mother's marital status is measured by three dummy variables: married (reference group), previously married, and never married. Two additional variables indicate whether (1) the child's biological father is in the household or (2) the child has a stepfather or adoptive father in the household.

Two variables gauge the level of parent-child interaction.⁶ The first captures how often the mother eats dinner with the child. Those who eat dinner together seven nights a week are compared to those who eat together fewer than seven nights a week. The second measure captures how often the parent talks to or plays with the child for five minutes or more just for fun. Those who talk to or play with their children at least daily are compared to those who interact less frequently.

Four household characteristics are examined in this paper. The first is a count of the number of people residing in the household. The second captures the tenure status of the living quarters: owned or being bought by someone in the household (reference group), rented, and occupied without payment of rent. A third variable indicates whether the household is in a metro (versus a residual) area. The final variable is an indicator of whether someone in the household owns a car.⁷ Additionally, several control variables are included in all the analyses. These include the sex and age of the child. There is an additional control variable indicating whether the respondent participated in the 2004 or 2008 SIPP Panel.

⁶ These variables come from the child well-being topical module.

⁷ This variable comes from the real estate topical module.

Sample

The sample for this analysis consists of children ages five to seventeen living in low-income households – defined as having an average household income-to-poverty ratio across the reference year of less than 1.3.⁸ The average income-to-poverty ratio is used to account for poverty cycling, which is the movement into and out of poverty (Irving 2013). To be in the study sample, children must have resided with their biological mother in each month they are in the SIPP sample.⁹ Due to small sample size, the analysis excludes children whose race is reported as “other.”¹⁰ Additionally, children receiving Supplemental Security Income (SSI) were excluded from the analysis because of their unique circumstances.¹¹ Finally, cases were excluded if there were missing values on any of the dependent variables.¹² The resulting unweighted sample size is 5,950 low-income children.¹³

Methods

The analyses are conducted using the ‘proc surveylogistic’ function in SAS, which adjusts the standard errors to account for SIPP’s complex sampling design. Results are presented as odds ratios. Values greater than 1.0 are positive effects, while values less than 1.0 are negative effects. A value of 1.0 indicates no effect. The models predict the likelihood that a child participates in extracurricular activities, has positive attitudes towards school, is in

⁸ There are 42,965 children between the ages of five and seventeen in the 2004 and 2008 SIPP Panels. A small number of these respondents were dropped due to inconsistencies in their reported age (78), sex (33), and race (74). The number meeting the low-income eligibility criterion was 10,791.

⁹ The children in the sample may or may not have lived in the same household as their fathers. Of the 10,791 low-income children eligible for the study sample, 9,105 lived with their biological mother each month they were in the SIPP sample and 1,686 did not meet this criterion.

¹⁰ Five hundred fifty-six children’s race was reported as “other.”

¹¹ SSI provides cash assistance to aged, blind, and disabled people who have little or no income. The number of children receiving SSI was 423.

¹² One thousand four hundred eight low-income children had missing data on one or more of the items measuring participation in extracurricular activities, and 765 had missing data one or more of the items measuring positive attitudes towards school.

¹³ Three low-income children had missing data on their mother’s characteristics and are excluded from the analysis.

excellent or very good health, and has seen a doctor in the past 12 months. Accordingly, positive effects (odds ratios greater than 1.0) indicate better child well-being, and negative effects (odds ratios less than 1.0) indicate poorer child well-being.

There are eight logistic regression models for each child well-being measure. The first and second show just the effects of TANF and SNAP participation, respectively, while the third model shows the effects of both programs.¹⁴ The fourth adds a control for income-to-poverty ratio. The fifth and sixth models add race/ethnicity and mother's nativity status, respectively. The seventh model adds the effects of parental characteristics. The eighth model, the full model, adds the effects of household characteristics.

Results

Descriptive statistics are shown in Table 1. Whereas over one-half of low-income children are SNAP participants (57.4 percent), only 14.5 percent are TANF participants. Nearly all low-income children who receive TANF benefits also receive SNAP benefits (97.7 percent), and about one-half of low-income children not receiving TANF benefits receive SNAP benefits (50.6 percent). About one-quarter of low-income SNAP participants also receive TANF (24.6 percent). Very few low-income children receive TANF benefits if they are not receiving SNAP benefits (0.8 percent).

Program participants are different from non-participants in many ways. Compared to non-participants, TANF and SNAP participants are poorer and disproportionately Black. The mothers of low-income, program participant children are more likely to be native-born, have lower educational attainment, and are less likely to be married compared to those of low-income, non-participant children. TANF and SNAP participants are less likely to live with their

¹⁴ All models control for the sex and age of the child and the SIPP Panel.

biological father compared to low-income non-participants. They are also less likely to live in a housing unit that is owned and with someone who owns a car. Low-income non-participant children are somewhat more likely to participate in extracurricular activities compared to low-income, participant children. Yet, participant children are more likely to have seen a doctor in the past 12 months compared to non-participant children.

Table 2 shows logistic regression models predicting participation in extracurricular activities for low-income children. Separately, both TANF and SNAP are associated with lower odds of participation in extracurricular activities. However, Model 3 of Table 2 shows no significant effect of TANF participation, net of SNAP participation. SNAP participation, net of TANF participation, lowers the odds of participation in extracurricular activities by 25 percent (0.750). Model 8 shows that net of income-to-poverty ratio, race, nativity, parental characteristics, and household characteristics, SNAP participation is associated with 16.8 percent lower odds of participation in extracurricular activities (0.832).

A number of other characteristics are significantly related to the odds of participation in extracurricular activities among low-income children in the full model. Those more likely to participate in extracurricular activities include children with income-to-poverty ratios of 1.0 to 1.3 (compared to those with ratios of less than 0.5), those whose mothers have at least some college experience (compared to those whose mothers lack a high school degree), those who talk to or play with a parent every day, males, and older children. The odds of participating in extracurricular activities are lower for Hispanic children (compared to White children), children whose mothers are foreign-born citizens (versus native-born), and those living in a housing unit that is rented (versus owned).

Logistic regression models predicting positive attitudes towards school for low-income children are presented in Table 3. Models 1 and 2 show that TANF and SNAP participation are associated with lower odds of having positive attitudes towards school. Compared to their non-recipient counterparts, low-income children who receive TANF and SNAP have 17.1 percent and 18.5 percent lower odds of having positive attitudes towards school, respectively. However, when both programs are taken into consideration (Model 3), TANF participation is no longer significantly associated with the likelihood of having positive attitudes towards school. SNAP participation becomes non-significant when parental characteristics are taken into account. In the full model, neither TANF nor SNAP participation are significantly associated with the odds that a low-income child has positive attitudes towards school.

The odds of having positive attitudes towards school are increased for low-income children with income-to-poverty ratios from 0.5 up to 1.0 (versus less than 0.5). Compared to low-income White children, low-income Black, Asian, and Hispanic children are more likely to have positive attitudes towards school. Children whose mothers are foreign-born noncitizens are more likely to have positive attitudes towards school than children whose mothers are native-born. Low-income children who eat dinner with a parent every night of the week and talk to or play with a parent every day are more likely to have positive attitudes towards school than those who do so less frequently. They are less likely to have positive attitudes towards school if their mothers have a high school degree (versus no high school degree), they live in a housing unit that is rented (versus owned), they are male, and they are older.

Table 4 shows logistic regression models predicting whether low-income children are in excellent or very good health. There is no significant effect of TANF participation on this outcome. However, there is a negative association between SNAP participation and the

likelihood of being in excellent or very good health. Low-income children who receive SNAP benefits have 24.5 percent lower odds of being in excellent or very good health compared to those who do not receive SNAP (0.755). This effect remains statistically significant net of controls for income-to-poverty ratio, race and nativity, parental characteristics, and household characteristics.

Children with income-to-poverty ratios from 0.5 up to 1.0 have lower odds of being in excellent or very good health than do those with ratios of less than 0.5. Hispanic children have lower odds of doing so than White children. The children of foreign-born noncitizen mothers have higher odds of being in excellent or very good health compared to the children of native-born mothers. Maternal educational attainment and employment are positively associated with the odds of being in excellent or very good health. Curiously, children who participated in the 2004 SIPP Panel have lower odds of being in excellent or very good health compared to children in the 2008 SIPP Panel.

Logistic regression models predicting whether a low-income child has seen a doctor in the past 12 months are presented in Table 5. Separately, both TANF and SNAP participation are associated with increased odds of having seen a doctor in the past 12 months. TANF participation raises the odds by 48.3 percent and SNAP participation by 53.5 percent. These variables remain significantly related to the odds of having seen a doctor in the past 12 months in the full model.

Several factors are associated with increased odds that a low-income child has seen a doctor in the past 12 months: income-to-poverty ratio from 1.0 up to 1.3 (versus less than 0.5), having a mother with at least some college experience (versus no high school degree), having a mother who was employed full time in 4 or more of the past 12 months, eating dinner with a

parent every night of the week, living in a household in which at least one person owns a car, and age. Low-income children have lower odds of having seen a doctor in the past 12 months if they are Black or Hispanic (versus White), have a foreign-born mother (versus a native-born mother), have high household size, and live in a housing unit that is rented (versus owned).

Discussion

This paper addressed two primary research questions. First, among low-income children, is program participation associated with better, poorer, or similar levels of child well-being? This study found that among low-income children, program participation is associated with poorer well-being on some measures of child well-being. TANF is negatively associated with the educational development indicators. SNAP participation is negatively associated with the educational development indicators and the likelihood that a child is in excellent or very good health. Yet, both TANF and SNAP participation are positively associated with the odds that a child has seen a doctor in the past 12 months.¹⁵

The negative associations between TANF participation and the educational development indicators do not remain significant once SNAP participation is accounted for. Because SNAP participation is also negatively associated with these outcomes and the strong correlation between TANF receipt and SNAP receipt, it makes sense that SNAP participation is more strongly correlated with child wellbeing indicators than is TANF participation. Previous research found few differences between the well-being of low-income program participant and non-participant children (Zill, et. al. 1995). Results from this study did find differences. While

¹⁵ This finding may reflect the fact that many TANF and SNAP participants are also Medicaid participants. However, it is important to keep in mind that TANF and SNAP participants may be more likely to have seen a doctor in the past 12 months because they have poorer health. This paper has assumed that having seen a doctor in the past 12 months is an indicator of positive child well-being; yet, the author acknowledges that children who are in poor health may be more likely to visit a doctor.

previous research focused primarily on the effects of AFDC on child well-being differences, this research found differences between those who do and those who do not receive SNAP benefits.

This study also addressed whether differences in child well-being by program participation status are explained by differences in income, race, nativity, parental characteristics, and household characteristics. There is only once instance in which the effect of program participation is explained away by other personal, parental, or household characteristics. Parental characteristics mediate the association between SNAP participation and the odds that a child has positive attitudes towards school. This indicates that part of the reason that SNAP participation is associated with lower odds of having positive attitudes towards school is that the parental characteristics of SNAP participant children differ from their non-participant counterparts.

In terms of participation in extracurricular activities and being in excellent or very good health, however, SNAP participants remain disadvantaged net of income, race, nativity, parental characteristics, and household characteristics. These same characteristics do not account for why TANF and SNAP participants are more likely than non-participants to have seen a doctor in the past 12 months. More research is needed to identify why program participation is associated with different levels of well-being among low-income children.

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Table 1. Weighted descriptive statistics for all low-income children and by program participation status

| | All | TANF | No TANF | SNAP | No SNAP |
|--|-------|------|-------------------|-------|-------------------|
| Program participation | | | | | |
| TANF | 14.5 | | | 24.6 | 0.8 ^c |
| SNAP | 57.4 | 97.7 | 50.6 ^b | | |
| Income-to-poverty ratio | | | | | |
| <0.5 | 26.4 | 47.4 | 22.9 ^b | 35.7 | 13.9 ^c |
| 0.5 to <1.0 | 43.7 | 39.7 | 44.3 | 44.4 | 42.7 |
| 1.0 to <1.3 | 29.9 | 12.9 | 32.8 ^b | 19.9 | 43.4 ^c |
| Race | | | | | |
| White | 34.8 | 20.4 | 37.2 ^b | 29.8 | 41.4 ^c |
| Black | 25.9 | 38.9 | 23.7 ^b | 35.1 | 13.4 ^c |
| Asian | 2.8 | 2.1 | 2.9 | 1.2 | 4.8 ^c |
| Hispanic | 36.6 | 38.6 | 36.3 | 33.8 | 40.4 ^c |
| Nativity of mother | | | | | |
| Native-born | 69.9 | 77.7 | 68.5 ^b | 78.9 | 57.7 ^c |
| Foreign-born citizen | 8.6 | 3.0 | 9.6 ^b | 5.8 | 12.5 ^c |
| Foreign-born noncitizen | 21.5 | 19.3 | 21.9 | 15.4 | 29.8 ^c |
| Parental characteristics | | | | | |
| Mother's education | | | | | |
| No high school degree | 33.5 | 44.4 | 31.6 ^b | 36.4 | 29.5 ^c |
| High school degree | 29.3 | 25.0 | 30.1 | 28.1 | 31.0 |
| Some college | 30.9 | 27.9 | 31.5 | 32.0 | 29.5 |
| Bachelor's degree or higher | 6.3 | 2.8 | 6.9 ^b | 3.4 | 10.1 ^c |
| Mother's employed full-time | 31.7 | 15.2 | 34.4 ^b | 30.4 | 33.4 |
| Mother's marital status | | | | | |
| Married | 48.4 | 24.8 | 52.4 ^b | 32.9 | 69.2 ^c |
| Previously married | 25.4 | 32.0 | 24.3 ^b | 30.8 | 18.1 ^c |
| Never married | 26.2 | 43.2 | 23.4 ^b | 36.2 | 12.7 ^c |
| Biological father in household | 42.3 | 17.3 | 46.5 ^b | 26.7 | 63.3 ^c |
| Step or adoptive dad in household | 6.1 | 4.7 | 6.3 | 5.7 | 6.6 |
| Eat dinner together every night | 77.9 | 76.4 | 78.1 | 76.6 | 79.6 |
| Talk to or play with every day | 49.0 | 45.4 | 49.7 | 48.4 | 49.9 |
| Household characteristics | | | | | |
| Number of people in household ^a | 4.8 | 4.9 | 4.8 | 4.8 | 4.8 |
| Tenure status | | | | | |
| Owned | 35.2 | 12.1 | 39.1 ^b | 24.2 | 50.0 ^c |
| Rented | 61.5 | 84.4 | 57.6 ^b | 72.5 | 46.7 ^c |
| Occupied without payment of rent | 3.3 | 3.5 | 3.3 | 3.4 | 3.2 |
| Someone in household owns a car | 70.1 | 56.9 | 74.7 ^b | 61.1 | 82.3 ^c |
| Metro residence | 79.6 | 87.5 | 78.3 ^b | 78.9 | 80.5 |
| Control variables | | | | | |
| Child's sex=male | 49.0 | 49.4 | 48.9 | 49.1 | 48.8 |
| Age of child ^a | 11.0 | 11.2 | 11.0 | 10.9 | 11.1 |
| SIPP panel=2004 | 45.3 | 51.1 | 44.4 ^b | 43.5 | 47.8 |
| Dependent variables | | | | | |
| Participates in extracurricular activities | 42.1 | 36.0 | 43.1 ^b | 38.8 | 46.5 ^c |
| Positive attitudes towards school | 59.0 | 55.0 | 59.7 | 57.5 | 61.0 |
| Excellent or very good health | 79.1 | 76.4 | 79.6 | 77.5 | 81.3 |
| Seen a doctor in past 12 months | 55.1 | 62.6 | 53.8 ^b | 59.5 | 49.3 ^c |
| Unweighted N | 5,950 | 868 | 5,082 | 3,501 | 2,449 |

a The mean is reported.

b Significantly different from the 'TANF' estimate.

c Significantly different from the 'SNAP' estimate.

Source: U.S. Census Bureau, Survey of Income and Program Participation (SIPP), 2004 Panel, Waves 1-3 and 2008 Panel, Wave 2-4.

Table 2. Logistic Regression Models Predicting Participation in Extracurricular Activities for Low-Income Children (Odds ratios; N=5,950)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|---------|----------|----------|----------|----------|----------|----------|----------|
| Program participation | | | | | | | | |
| TANF participation | 0.750** | | 0.858 | 0.889 | 0.936 | 0.929 | 0.969 | 1.014 |
| SNAP participation | | 0.723*** | 0.750*** | 0.789** | 0.765*** | 0.747*** | 0.809* | 0.832* |
| Income-to-poverty ratio (ref=<0.5) | | | | | | | | |
| 0.5 to <1.0 | | | | 1.117 | 1.186* | 1.196* | 1.139 | 1.128 |
| 1.0 to <1.3 | | | | 1.324*** | 1.367*** | 1.363*** | 1.275* | 1.245* |
| Race and nativity | | | | | | | | |
| Race of child (ref=White) | | | | | | | | |
| Black | | | | | 0.841* | 0.839* | 0.907 | 0.973 |
| Asian | | | | | 0.843 | 0.986 | 0.909 | 0.950 |
| Hispanic | | | | | 0.495*** | 0.529*** | 0.601*** | 0.613*** |
| Nativity of mother (ref=native-born) | | | | | | | | |
| Foreign-born citizen | | | | | | 0.745* | 0.781+ | 0.779+ |
| Foreign-born noncitizen | | | | | | 0.882 | 0.999 | 1.020 |
| Parental characteristics | | | | | | | | |
| Mother's education (ref=no HS degree) | | | | | | | | |
| High school degree | | | | | | | 1.160 | 1.137 |
| Some college | | | | | | | 1.906*** | 1.845*** |
| Bachelors degree or more | | | | | | | 1.876*** | 1.763** |
| Mother employed full-time | | | | | | | 0.975 | 0.966 |
| Mother's marital status (ref=married) | | | | | | | | |
| Previously married | | | | | | | 1.028 | 1.042 |
| Never married | | | | | | | 0.777 | 0.808 |
| Biological father in household | | | | | | | 1.038 | 1.035 |
| Step or adoptive father in household | | | | | | | 0.872 | 0.895 |
| Eat dinner together every night | | | | | | | 1.058 | 1.062 |
| Talk to or play with every day | | | | | | | 1.325** | 1.327** |
| Household characteristics | | | | | | | | |
| Number of people in household | | | | | | | | 0.971 |
| Tenure status (ref=owned) | | | | | | | | |
| Rented | | | | | | | | 0.853+ |
| Occupied without payment of rent | | | | | | | | 0.744+ |
| Metro residence | | | | | | | | 0.945 |
| Someone in household owns a car | | | | | | | | 1.152 |

Control variables

| | | | | | | | | |
|------------------|----------|----------|----------|---------|---------|---------|----------|----------|
| Child's sex=male | 1.105+ | 1.106+ | 1.106+ | 1.104 | 1.110+ | 1.107+ | 1.120+ | 1.119+ |
| Age of child | 1.030*** | 1.029*** | 1.029*** | 1.028** | 1.026** | 1.027** | 1.032*** | 1.030*** |
| SIPP panel=2004 | 1.018 | 1.000 | 1.006 | 0.998 | 0.957 | 0.953 | 0.977 | 0.972 |
| -2 Log L | 8,095 | 8,073 | 8,070 | 8,055 | 7,929 | 7,921 | 7,773 | 7,756 |

+p<0.10; *p<0.05; **p<0.01; ***p<0.001

Source: U.S. Census Bureau, Survey of Income and Program Participation (SIPP), 2004 Panel, Waves 1-3 and 2008 Panel, Wave 2-4.

Table 3. Logistic Regression Models Predicting Positive Attitudes Toward School for Low-Income Children (Odds ratios; N=5,950)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|--------|---------|---------|---------|----------|----------|----------|----------|
| Program participation | | | | | | | | |
| TANF participation | 0.829+ | | 0.900 | 0.920 | 0.874 | 0.868 | 0.895 | 0.899 |
| SNAP participation | | 0.815** | 0.835** | 0.837* | 0.835* | 0.856* | 0.941 | 0.956 |
| Income-to-poverty ratio (ref=<0.5) | | | | | | | | |
| 0.5 to <1.0 | | | | 1.239** | 1.216* | 1.207* | 1.154+ | 1.159+ |
| 1.0 to <1.3 | | | | 1.064 | 1.071 | 1.063 | 1.001 | 1.002 |
| Race and nativity | | | | | | | | |
| Race of child (ref=White) | | | | | | | | |
| Black | | | | | 1.361** | 1.357** | 1.513*** | 1.509*** |
| Asian | | | | | 1.857* | 1.720* | 1.558+ | 1.567+ |
| Hispanic | | | | | 1.544*** | 1.377*** | 1.393*** | 1.387*** |
| Nativity of mother (ref=native-born) | | | | | | | | |
| Foreign-born citizen | | | | | | 0.953 | 0.944 | 0.934 |
| Foreign-born noncitizen | | | | | | 1.363** | 1.286* | 1.302* |
| Parental characteristics | | | | | | | | |
| Mother's education (ref=no HS degree) | | | | | | | | |
| High school degree | | | | | | | 0.864+ | 0.869+ |
| Some college | | | | | | | 1.012 | 1.020 |
| Bachelors degree or more | | | | | | | 1.353+ | 1.332 |
| Mother employed full-time | | | | | | | 1.054 | 1.055 |
| Mother's marital status (ref=married) | | | | | | | | |
| Previously married | | | | | | | 0.832 | 0.849 |
| Never married | | | | | | | 0.818 | 0.841 |
| Biological father in household | | | | | | | 1.134 | 1.093 |
| Step or adoptive father in household | | | | | | | 1.075 | 1.052 |
| Eat dinner together every night | | | | | | | 1.431*** | 1.432*** |
| Talk to or play with every day | | | | | | | 1.292*** | 1.304*** |
| Household characteristics | | | | | | | | |
| Number of people in household | | | | | | | | |
| Tenure status (ref=owned) | | | | | | | | 1.020 |
| Rented | | | | | | | | 0.867+ |
| Occupied without payment of rent | | | | | | | | 0.876 |
| Metro residence | | | | | | | | 1.041 |
| Someone in household owns a car | | | | | | | | 0.987 |

Control variables

| | | | | | | | | |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Child's sex=male | 0.569*** | 0.569*** | 0.900 | 0.565*** | 0.559*** | 0.558*** | 0.556*** | 0.556*** |
| Age of child | 0.929*** | 0.928*** | 0.835** | 0.928*** | 0.928*** | 0.928*** | 0.935*** | 0.935*** |
| SIPP panel=2004 | 0.909 | 0.898 | 0.902 | 0.900 | 0.909 | 0.915 | 0.929 | 0.929 |
| -2 Log L | 7,864 | 7,856 | 7,854 | 7,842 | 7,789 | 7,773 | 7,673 | 7,667 |

+p<0.10; *p<0.05; **p<0.01; ***p<0.001

Source: U.S. Census Bureau, Survey of Income and Program Participation (SIPP), 2004 Panel, Waves 1-3 and 2008 Panel, Wave 2-4.

Table 4. Logistic Regression Models Predicting Excellent or Very Good Health for Low-Income Children (Odds ratios; N=5,950)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|-------|----------|---------|---------|---------|---------|---------|---------|
| Program participation | | | | | | | | |
| TANF participation | 0.866 | | 0.980 | 0.973 | 0.993 | 0.997 | 1.051 | 1.018 |
| SNAP participation | | 0.755*** | 0.759** | 0.771** | 0.762** | 0.775** | 0.787* | 0.778* |
| Income-to-poverty ratio (ref=<0.5) | | | | | | | | |
| 0.5 to <1.0 | | | | 0.869 | 0.883 | 0.878 | 0.835+ | 0.839+ |
| 1.0 to <1.3 | | | | 1.045 | 1.049 | 1.049 | 0.965 | 0.978 |
| Race and nativity | | | | | | | | |
| Race of child (ref=White) | | | | | | | | |
| Black | | | | | 0.914 | 0.915 | 0.870 | 0.830 |
| Asian | | | | | 0.816 | 0.736 | 0.708 | 0.682 |
| Hispanic | | | | | 0.792* | 0.750** | 0.810+ | 0.792* |
| Nativity of mother (ref=native-born) | | | | | | | | |
| Foreign-born citizen | | | | | | 1.180 | 1.209 | 1.198 |
| Foreign-born noncitizen | | | | | | 1.120 | 1.259* | 1.226+ |
| Parental characteristics | | | | | | | | |
| Mother's education (ref=no HS degree) | | | | | | | | |
| High school degree | | | | | | | 1.364** | 1.364** |
| Some college | | | | | | | 1.376** | 1.377** |
| Bachelors degree or more | | | | | | | 1.716** | 1.714** |
| Mother employed full-time | | | | | | | 1.212* | 1.220* |
| Mother's marital status (ref=married) | | | | | | | | |
| Previously married | | | | | | | 1.076 | 1.040 |
| Never married | | | | | | | 1.056 | 1.005 |
| Biological father in household | | | | | | | 1.032 | 1.079 |
| Step or adoptive father in household | | | | | | | 1.085 | 1.121 |
| Eat dinner together every night | | | | | | | 0.845 | 0.843 |
| Talk to or play with every day | | | | | | | 0.903 | 0.897 |
| Household characteristics | | | | | | | | |
| Number of people in household | | | | | | | | 0.984 |
| Tenure status (ref=owned) | | | | | | | | |
| Rented | | | | | | | | 1.135 |
| Occupied without payment of rent | | | | | | | | 0.869 |
| Metro residence | | | | | | | | 1.085 |
| Someone in household owns a car | | | | | | | | 0.889 |

Control variables

| | | | | | | | | |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Child's sex=male | 1.048 | 1.048 | 1.048 | 1.051 | 1.053 | 1.055 | 1.063 | 1.056 |
| Age of child | 1.004 | 1.003 | 1.003 | 1.003 | 1.002 | 1.001 | 0.998 | 0.998 |
| SIPP panel=2004 | 0.704*** | 0.694*** | 0.695*** | 0.694*** | 0.685*** | 0.687*** | 0.697*** | 0.700*** |
| -2 Log L | 6,267 | 6,251 | 6,251 | 6,245 | 6,234 | 6,232 | 6,190 | 6,179 |

+p<0.10; *p<0.05; **p<0.01; ***p<0.001

Source: U.S. Census Bureau, Survey of Income and Program Participation (SIPP), 2004 Panel, Waves 1-3 and 2008 Panel, Wave 2-4.

Table 5. Logistic Regression Models Predicting Having Seen a Doctor in the Past 12 Months for Low-Income Children (Odds ratios; N=5,950)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|----------|----------|----------|----------|----------|----------|----------|----------|
| Program participation | | | | | | | | |
| TANF participation | 1.483*** | | 1.244+ | 1.278* | 1.354* | 1.343* | 1.275* | 1.376** |
| SNAP participation | | 1.535*** | 1.459*** | 1.528*** | 1.554*** | 1.469*** | 1.459*** | 1.568*** |
| Income-to-poverty ratio (ref=<0.5) | | | | | | | | |
| 0.5 to <1.0 | | | | 1.052 | 1.082 | 1.106 | 1.150 | 1.138 |
| 1.0 to <1.3 | | | | 1.268* | 1.269* | 1.270* | 1.359** | 1.306* |
| Race and nativity | | | | | | | | |
| Race of child (ref=White) | | | | | | | | |
| Black | | | | | 0.706*** | 0.703*** | 0.683*** | 0.750** |
| Asian | | | | | 0.676+ | 0.934 | 0.952 | 1.025 |
| Hispanic | | | | | 0.599*** | 0.725*** | 0.796* | 0.811* |
| Nativity of mother (ref=native-born) | | | | | | | | |
| Foreign-born citizen | | | | | | 0.612*** | 0.667** | 0.649** |
| Foreign-born noncitizen | | | | | | 0.662*** | 0.762* | 0.759* |
| Parental characteristics | | | | | | | | |
| Mother's education (ref=no HS degree) | | | | | | | | |
| High school degree | | | | | | | 1.089 | 1.005 |
| Some college | | | | | | | 1.640*** | 1.464*** |
| Bachelors degree or more | | | | | | | 1.665*** | 1.396* |
| Mother employed full-time | | | | | | | 0.783*** | 0.776*** |
| Mother's marital status (ref=married) | | | | | | | | |
| Previously married | | | | | | | 1.095 | 1.065 |
| Never married | | | | | | | 0.967 | 0.976 |
| Biological father in household | | | | | | | 0.756+ | 0.867 |
| Step or adoptive father in household | | | | | | | 0.770 | 0.927 |
| Eat dinner together every night | | | | | | | 1.196+ | 1.222* |
| Talk to or play with every day | | | | | | | 1.155+ | 1.132 |
| Household characteristics | | | | | | | | |
| Number of people in household | | | | | | | | 0.859*** |
| Tenure status (ref=owned) | | | | | | | | |
| Rented | | | | | | | | 0.863+ |
| Occupied without payment of rent | | | | | | | | 1.095 |
| Metro residence | | | | | | | | 1.059 |
| Someone in household owns a car | | | | | | | | 1.192* |

Control variables

| | | | | | | | | |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Child's sex=male | 0.919 | 0.919 | 0.919 | 0.918 | 0.921 | 0.916 | 0.926 | 0.918 |
| Age of child | 1.015 | 1.017+ | 1.017+ | 1.016 | 1.015 | 1.016 | 1.020* | 1.017+ |
| SIPP panel=2004 | 0.965 | 0.989 | 0.980 | 0.974 | 0.959 | 0.947 | 0.960 | 0.949 |
| -2 Log L | 8,152 | 8,114 | 8,106 | 8,094 | 8,026 | 7,987 | 7,870 | 7,783 |

+p<0.10; *p<0.05; **p<0.01; ***p<0.001

Source: U.S. Census Bureau, Survey of Income and Program Participation (SIPP), 2004 Panel, Waves 1-3 and 2008 Panel, Wave 2-4.