The Journal of Sociology & Social Welfare

Volume 36
Issue 1 *March*

Article 4

2009

Parental Assets: A Pathway to Positive Child Educational Outcomes

Michal Grinstein-Weiss
University of North Carolina, Chapel Hill

Yeong Hun Yeo
University of North Carolina, Chapel Hill

Kate Irish
Durham's Partnership for Children

Min Zhan
University of Illinois, Urbana-Champaign

Parental Assets: A Pathway to Positive Child Educational Outcomes

MICHAL GRINSTEIN-WEISS

YEONG HUN YEO

University of North Carolina at Chapel Hill
School of Social Work

KATE IRISH

Durham's Partnership for Children

MIN ZHAN

University of Illinois at Urbana-Champaign
School of Social Work

A growing body of evidence suggests parental assets have positive effects on children's well-being. Using 2004 data from the Survey of Income and Program Participation, this study tests the effect of parental asset holding on child educational outcomes, and explores whether parental involvement and expectations mediate this relationship. Results indicate that assets are a significant predictor of all child academic outcomes of our study; however, income is not a significant predictor for school outcomes when controlling for assets. The mediation analyses show the effect of assets on school outcomes is mediated by two of the three parenting measures: parental expectations and the number of parent-child breakfast days per week. We include implications for policy and practice.

Key words: *Assets, child outcomes, parental involvement, parental expectations, income*

A large body of research has established that family income influences a variety of child outcomes related to school performance (Duncan & Brooks-Dunn, 1997; Gershoff, 2003; Costello, Compton, Keeler, & Angold, 2003; Morris & Gennetian, 2003). However, recent research has suggested that financial asset holding, or wealth, can also affect a child's academic outcomes (Conley, 2001; Mayer, 1997; Williams, 2003; Zhan, 2006; Zhan & Sherraden, 2003). This argument has important implications because, when compared to households without children, households with children are more likely to experience asset poverty. The concept of asset poverty is described as a household having insufficient assets or net worth to maintain itself at a poverty-level income for three months (Haveman & Wolff, 2005).

Assets, defined as the total amount of an individual's accumulated wealth held at a given time, offer resources that create opportunities for investment in long-term economic and social well-being (Sherraden, 2005). Therefore, assets may be particularly important for families because they provide stability, offer a cushion in difficult times, and improve future orientation.

Although there is some evidence that has suggested parental asset holding is important for children, less is known about the pathway through which assets affect child outcomes. One possible pathway that wealth and asset ownership may influence children's education is by improving parental attitudes and practices. By analyzing a longitudinal, nationally representative data set, this study examined the pathway through which parental asset holding affects child academic outcomes as well as the possible mediating effects of parental expectations and parental involvement.

Literature Review

Assets and children's school outcomes

Over the course of the past 10 years, policy makers, scholars, and social researchers have begun to give more attention to household net worth and asset holding as important indicators of a household's financial security and economic status. Furthermore, when considering the economic resources

available to a household, some scholars in this field have differentiated between income stream and assets (Oliver & Shapiro, 1995; Sherraden, 1991; Wolff, 1995). For example, Sherraden (1991) distinguished assets from the income flow by noting the importance of assets in providing economic security and a cushion for unpredictable events such as job layoffs, job loss, or prolonged illness that can create economic and financial stress for a family. In addition to buffering economic stress, and perhaps more important, assets may serve as a catalyst to change the way people regard their lives, their future, their positions and roles in their communities, as well as to expand the range of opportunities available to these households (Oliver & Shapiro, 1995; Sherraden, 1991). A growing body of empirical studies have tested the independent effects of assets (i.e., independent from effects of income) on the well-being of households, and the research findings have been consistently positive (Page-Adams & Sherraden, 1997; Scanlon & Page-Adams, 2001). One finding from previous research that is of particular relevance to this study was that the assets held by parents might enhance their children's well-being through a cushioning effect that buffers the negative effects of unplanned income loss. In addition, asset holding has shown greater stability across generations than income. Of all the forms of parental influence on children, financial assets may be the easiest to transmit (Sherraden, 1991).

In addition, findings from a substantial number of empirical studies have supported the distinct impact of household assets as independent from the influence of income on children's educational outcomes (Conley, 2001; Mayer, 1997; Williams, 2003; Zhan, 2006; Zhan & Sherraden, 2003). Some of these studies reported that after controlling for household income and other measures of socioeconomic background, net worth was positively related to educational performance (e.g., test scores) and achievement (e.g., postsecondary schooling) of children (Conley, 2001; Williams, 2003; Zhan, 2006). The impact of different types of asset holding (e.g., home ownership, savings accounts, stock/IRA account) on children's education also has been examined. For example, Zhan and Sherraden (2003) found that home ownership by low-income single mothers was positively related to their children's grade point average.

In addition, children whose mothers maintained some savings were more likely to graduate from high school. Interestingly, these researchers also found that when assets were included in the equation, parental income was not related to the children's education attainment. Other studies have specifically examined the impact of homeownership on children's educational attainment, and have indicated that children were more likely to graduate from high school if they lived in households in which the parents were homeowners (e.g., Aaronson, 2000; Green & White, 1997; Kane, 1994; Rossi & Weber, 1996).

Assets and parental expectations and parental involvement

In addition to its economic impact, several theorists and empirical evidence have also suggested that asset building produces an attitudinal and behavioral impact on families (DiPasquale & Glaeser, 1999; Rossi & Weber, 1996; Scanlon, 2001; Sherraden, 1991; Shobe & Page-Adams, 2001; Yadama & Sherraden, 1996). Sherraden (1991) indicated that owning assets can change the most fundamental ways that people think about their lives, and thus help to foster a personal orientation toward the future. This hypothesis has been supported by findings from other studies; for example, Yadama and Sherraden (1996), found that both house values and savings demonstrated positive links with families' attitudes including prudent behaviors, efficacy, social connectedness, and effort. Other studies that have examined the effect of assets on the attitudes of single mothers have shown a positive relation between assets and the mothers' educational advancement, increased participation in job training activities (Zhan, 2006), and increased work hours (Cho, 2001; Zhan, 2006). In addition, self-report surveys of Individual Development Accounts (IDAs) participants have indicated that these asset holders were more likely to plan for their children's education after joining the IDA program (McBride, Lombe, & Beverly, 2003).

Further, evidence has suggested that asset building and wealth accumulation may ultimately improve children's education through a positive influence on parental attitudes and behaviors. Specifically, compared to parents without assets, parents with assets have been shown to perceive a brighter future for their children and were more likely to have positive

parental attitudes and behaviors. In turn, these positive parental attitudes may help improve children's educational attainment (Zhan & Sherraden, 2003). In other words, parental attitudes and practices may mediate the relations between assets and children's school outcomes. In an analysis of a sample of single mothers obtained from the National Survey of Families and Households, Zhan and Sherraden (2003) examined the relationships among assets, parental expectations, and children's educational achievements among single-mother families. These researchers found that parental expectations partially mediated the relationship between assets (i.e., home ownership and savings) and children's educational achievement. Similarly, in a recent analysis of a sample that included different types of households, which was obtained from the National Longitudinal Survey of Youth, Zhan (2006) found that parent expectations acted as a partial mediator between net worth and children's educational achievement when measured by reading and math scores. This study further examined the possible mediating effects of parenting activities between the links of parental assets with children's education. Although the study findings demonstrated a positive relationship between net worth and parental involvement in the children's school activities, parental involvement was not a mediating factor for the positive relationship between net worth and children's test scores. In addition, this study found that net worth was not related to parent supervision of children's homework. Elliot (2007) analyzed the 2002 Panel Study of Income Dynamics (PSID) and Child Development Supplement to the PSID, and found that one form of asset accumulation—parent savings for child's college—was a clear embodiment of parental expectations that the child will go to college. This finding is important because this form of asset accumulation was found across all parental race and socioeconomic categories.

Study Purpose

As seen from our review of the literature, studies have examined the impact of parental assets on children's educational outcomes and the mediating effects of parental expectations. Although these studies used different national data sets, their

findings are quite consistent. However, rigorous research is needed to further explore the relationship between assets and parental involvement as well as the possible mediating effects of parental involvement on the relationship between assets and children's education. In contrast to what researchers hypothesized, many studies have found weaker relationships between assets and parenting behaviors, and between parenting behaviors and children's educational outcomes (Zhan, 2006). At least in part, these findings could be the result of limitations in measuring parenting practices (e.g., self-report measurements by children). Therefore, researchers also need to examine how parental assets, expectations, and practices influence different dimensions of children's school outcomes (in addition to test scores and high school graduation). To help fill this information gap, our inquiry sought to answer the following research questions:

1. What are the effects of parental assets on child academic outcomes?
2. What are the effects of parental assets on parental involvement and parental expectations?
3. Do parental involvement and parental expectations mediate the effect of parental assets on child academic outcomes?

Data and Method

Sample

Data were obtained from the Survey of Income and Program Participation (SIPP), a longitudinal panel survey that has been collected three times a year by the U.S. Census Bureau since 1984. SIPP collects information from a nationally representative sample of U.S. households. The core module of the SIPP survey is conducted with each wave, and collects information on basic sociodemographic characteristics, income, and welfare program participation. In addition, each SIPP wave includes a topical module that obtains detailed information related to a specific subject or theme.

This study combined three data sets for analyses: the core module of the 2001 SIPP wave 6 for demographics and income information; the topical module of the 2001 SIPP wave 6 on

assets; and the topical module of the 2001 SIPP wave 7 on children's well-being. The data were collected between October 2002 and May 2003.

The unit of analysis was each child between the ages of 5 and 17 years. After removing extreme outliers of net worth (less than $-500,000 or more than $5,000,000), 4% of the sample was excluded from the analysis; the final sample included 12,392 children aged 5 to 17 years from 7,235 households.

Measures

Assets (independent variable). The independent variable—parental assets—was measured as net worth values. These values were calculated by subtracting the total debt from total wealth in each household. Total wealth included the value of the home and other real estate; vehicles; business equity; interest-earning assets in banks or other financial institutions; stock and mutual fund equity; and retirement savings accounts such as IRA, KEOGH, 401(k) programs and Thrift Savings Plans. Total debt included mortgages on the home and other real estate (such as rental property); vehicle loans; margin and brokerage accounts; business or professional debt; credit card and store bills; medical bills; loans from individuals, or financial institutions; and educational loans. Because of skewed distribution of assets, the values of assets were transformed into a natural log.

Parental expectation and parental involvement (mediator). The parental expectation for each child was explored by asking the primary caregiver, "How far do you think the child will go in school?" The five response options were 0 (*less than high school graduate*); 1 (*high school graduate*); 2 (*some college or training*); 3 (*college graduate*); and 4 (*more than college graduate*). Because the distribution of this variable approached normality with a moderate negative skewness (-0.997), it was treated as a continuous variable in the analysis.

Parental involvement was measured in this study through two variables. The first variable—parent–child interactions—was a composite variable derived from two questions asked each child's primary caregiver: "How often do you and the child talk or play with each other for 5 minutes or more just for fun?" and "How often do you praise or compliment the child

by saying something like 'Good for you'?" The five response options ranged from 0 (*never*) to 2 (*a few times a week*) to 4 (*many times each day*). A composite variable was created by adding these items together (scores ranged from 0 to 8, Cronbach alpha = 0.78), and the composite variable was treated as a continuous variable in the analysis.

The second variable for parent involvement was measured by asking the primary caregiver to identify "The number of days you have breakfast with the child each week." Because the response scales for this question were different from our other two measures of parental involvement, we created a separate variable for this question. The response scale ranged from 0 to 7, and it was used as a continuous variable in the analysis.

Children's school outcomes (outcome). This study included three questions regarding child school outcomes, all of which were asked of the primary caregiver for each child. The three outcome questions included (a) has the child ever repeated a grade? (b) has the child ever been expelled or suspended from a school? and (c) has the child shown interest in schoolwork?

If a child had repeated a grade, the response was coded as 1, and otherwise it was coded 0. If a child had ever been expelled or suspended from school, the response was coded as 1, and otherwise it was coded 0. For the question of the child's interest in schoolwork, responses of *often true* were coded as 1, and all other responses were coded as 0.

Among these school outcome questions, two of the measures, "repeated a grade" and "interested in schoolwork" were related to the children between ages 5 and 17 years; another outcome "expelled from a school," was limited to children between the ages of 12 and 17 years.

Control variables. The control variables included child characteristics, primary caregiver characteristics, and household characteristics. The child characteristics included age (in years) and a dichotomous variable for gender (coded 1 for *boy*, and 0 for *girl*). The characteristics of the primary caregiver included: (a) age of primary caregiver (in years); (b) a dichotomous variable for the primary caregiver's gender (coded 1 for female, and 0 for male); (c) a set of dummy variables indicating race/ethnicity of primary caregiver (White [the reference category], Black, Hispanic, and other race/ethnicity); (d) a set of

dummy variables for the education level of the primary caregiver (do not have high school diploma, have a high-school diploma or GED [the reference category], some college, and bachelor's degree or more); (e) a dichotomous variable for marital status of primary caregiver (coded 1 for married, and 0 for non-married); and (f) a set of dummy variables for the primary caregiver's employment status (full-time defined as 35 hours or more a week [the reference category], part-time, and not employed).

The household characteristics included the following: (a) a dichotomous variable for location of household, (coded 1 for *metropolitan area* and 0 for *non-metropolitan area*); (b) the number of children living in the household; (c) the number of adults (18 years and older) living in the household; and (d) the total household income, which was defined as the total amount of monthly income. Because the distribution of income was skewed, income data was transformed into a natural log.

Analysis

This study focused on the effects of net worth on child school outcomes mediated by parenting practice and parental expectation. The mediation model tested a direct path between the independent variable (parental assets) and dependent variables (child school outcomes), and an indirect link between the independent variable and dependent variable through a mediator (i.e., parental expectation and parental involvement; MacKinnon, Krull, & Lockwood, 2000). In mediation analysis, full mediation is supported if, when the mediator is controlled, the effect of the independent variable on a dependent variable becomes nonsignificant. However, the analysis supports partial mediation if, when the mediator is controlled, the effect of the independent variable on the dependent variable is reduced but still significant.

Based on the mediation model of this study, a series of regressions were run to examine the associations between assets and children's school outcomes, and the possible mediating effects of parental expectations and parental involvement. To demonstrate a mediated relationship between parental assets and child school outcomes, the regression results had to meet

the following conditions: (a) evidence of significant links between the predictors and outcomes, (b) evidence of significant relationship between the predictors and the mediator, (c) evidence of significant links between the mediator and the outcomes, and (d) controlling for the mediator must remove or reduce the relationship between the predictor and the outcomes (Baron & Kenny, 1986).

A mediation analysis was conducted using the four steps recommended by Baron and Kenny (1986). First, each of the child school outcomes was regressed on assets to test direct effects of assets on child school outcomes. Second, parental expectation and parental involvement were regressed on assets to test direct effects of assets on possible mediators. Third, the child school outcomes were regressed on parental expectation and parental involvement to test direct effects of possible mediators on child school outcomes. Fourth, child school outcomes were regressed on assets and parental expectation and parental involvement to test indirect effects of assets on child school outcomes.

To satisfy the conditions of being mediators, each of the three mediators tested in this study (i.e., parental expectation, parent–child interactions, and number of breakfasts with a child each week) had to be shown as associated with assets and with each of child school outcomes. Further, controlling for the mediators must eliminate or reduce the significance of the association found between assets and the child school outcomes.

Results

Description of sample characteristics, mediators, and child school outcomes

Table 1 illustrates the child, primary caregiver, and household characteristics of the sample. The mean age of children was 11 years old, and the sample was nearly evenly divided between genders. Although a majority of children lived with both parents, nearly one-quarter of children lived only with their mother. The majority of primary caregivers were female, White, with some college education, employed full-time, and lived in a metropolitan area. The mean household income was $5,045 per month, and the mean of total household assets was

$132,612.

Table 1 also includes the mean and frequency of the three mediator variables and the three child school outcomes used in this study. The means of parental expectation, parent-child interactions, and the number of breakfast days with the child a week were 2.9, 6.3, and 3.5 respectively. About 8% of children had repeated a grade, 12% of children had been suspended or expelled from school, and the majority of children were interested in schoolwork.

Assets and child school outcomes

Table 2 presents outcome data from logistic models for the three child school outcomes: "repeated a grade," "expelled from school," and "interested in school work." After controlling for demographic differences and social backgrounds of each child, the effect of assets on each of the child school outcomes was found to be significant. Children from households with higher net worth were less likely to have repeated a grade ($p<.001$) or to have been expelled from school ($p<.01$). In addition, our analysis showed that children from households with higher net worth were more likely to be interested in schoolwork ($p<.001$). These findings supported the direct relationship of parental assets on child school outcomes.

Among the control variables, child characteristics were found to be significant for child school outcomes. Boys and older children were more likely to have repeated a grade, been expelled from school, and less likely to be interested in school work ($p<.001$).

In addition, the characteristics of primary caregivers had significant influence on child school outcomes. Compared to children with a White primary caregiver, children with Black primary caregivers were more likely to have repeated a grade ($p<.001$), and more likely to have been expelled from school ($p<.01$). However, children with Hispanic primary caregivers were less likely to have repeated a grade ($p<.001$), less likely to have been expelled from school ($p<.001$), and more likely to be interested in schoolwork ($p<.001$). Further, when compared with children whose primary caregiver had a high school education, children whose primary caregiver had less than a high school education showed less interest in schoolwork ($p<05$),

Table 1. Sample characteristics, mediators, and child school outcomes

	Mean or freq.	Std. or %
Child		
Age	11.20	3.59
Gender (Male)	6,254	50.47%
Parents		
Both present	8,342	67.32%
Mother only	3,019	24.36%
Father only	474	3.83%
None	557	4.49%
Primary Caregiver		
Age	39.30	7.58
Race		
White	7,825	63.15%
Black	1,934	15.61%
Hispanic	2,013	16.24%
Other	620	5.00%
Education		
Less High	2,061	16.63%
High Grad.	3,664	29.57%
Some College	3,968	32.02%
College and More	2,699	21.78%
Marital Status (Married)	8,611	69.49%
Work Status		
Full time	5,959	48.09%
Part time	2,527	20.39%
None	3,906	31.52%
Metro Area	9,420	76.02%
Gender (Women)	11,782	95.08%
Total N of Adults in HH	2.05	0.81
Total N of Children in HH	2.48	1.25
Financial Resources		
Mean total HH income	$5,045.42	4,879
Median total HH income	$3,888.00	
Mean total HH asset	$132,612.50	281,194
Median total HH asset	$38,471	
Mediators		
Parental expectation (0-4)	2.90	0.90
Parental involvement		
Parent-child interactions (0-8)	6.33	1.65
Days breakfast with the child (0–7)	3.50	2.71
Child outcomes		
Repeated a grade	1,019	8.22%
Expelled, suspended from school	692	11.78%
Interested in schoolwork	7,388	64.32%

Note. HH = household

and were more likely to have repeated a grade ($p<.001$). Children whose primary caregiver had attained greater educational background (i.e. some college or a bachelor's degree or more) were less likely to have repeated a grade ($p<.001$) and were more interested in schoolwork ($p<.001$). Children from households with a married primary caregiver were found less likely to have repeated a grade ($p<.001$), less likely to have been expelled from school ($p<.001$), and more likely to be interested in schoolwork ($p<.001$) when compared with children from households with a non-married primary caregiver.

Furthermore, the primary caregiver's work status was shown to be significant, and related to both child school outcomes of repeating a grade and school expulsion. Compared with children whose primary caregiver was employed full-time (i.e., 35 hours or more per week), children whose primary caregiver was not working were more likely to have repeated a grade ($p<.001$) and more likely to have been expelled from school ($p<.01$).

The analysis provided interesting results for household characteristics such as the number of adults and household income. After controlling for a primary caregiver's marital status (to account for children living with both parents), the number of other adults living in the household was found to be significant and negatively related to the child school outcome of interest in schoolwork ($p<.05$). Further, when controlling for household net worth and social demographics, our analysis showed household income was a nonsignificant predictor for any of the child school outcomes examined in this study.

Parental expectation, parenting practice, and child school outcomes

Table 3 summarizes a series of logistic models constructed for the three child school outcomes of repeating a grade, school expulsion, and interest in schoolwork. Models 2, 3, and 4 tested the changes in the effect of net worth by including one of the three study mediators: parental expectation, parent-child interactions, and the number of days per week the primary caregiver had breakfast with the child (hereafter number of breakfasts). Significant mediators were included together in Model 5.

Table 2. Estimates from logistic regression models of child school outcome measures

	Repeated a grade		Expelled from school		Interested in school work	
Variables	b	S.E.	b	S.E.	b	S.E.
Intercept	5.096*	2.20	4.219	2.56	-2.697*	1.08
Child gender (boy)	0.467***	0.07	0.664***	0.09	-0.574***	0.04
Child age	0.142***	0.01	0.133***	0.03	-0.081***	0.01
Primary caregiver						
Gender (female)						
(Male)						
Female	0.008	0.15	0.343	0.19	0.013	0.09
Age	-0.012*	0.01	-0.023***	0.01	0.011***	0.003
Race/Ethnicity						
(White)						
Black	0.349***	0.09	0.326**	0.11	0.056	0.06
Hispanic	-0.365***	0.11	-0.508***	0.14	0.398***	0.06
Other	-0.084	0.17	-0.065	0.20	0.345***	0.10
Education						
Less high	0.361***	0.10	0.365**	0.12	-0.138*	0.07
(High school grad.)						
Some college	-0.296***	0.09	-0.126	0.11	0.117*	0.05
College grad. +	-0.368**	0.12	-0.165	0.14	0.269***	0.06
Marital status						
Married	-0.295***	0.08	-0.531***	0.11	0.274***	0.05
(Non-married)						
Work status						
(Full time)						
Part time	0.014	0.10	0.192	0.11	-0.019	0.05
No work	0.369***	0.08	0.301**	0.11	0.002	0.05
Residency						
Metro area	-0.144	0.08	0.160	0.10	0.091	0.05
(Non-metro area)						
# of children in HH.	0.049	0.03	0.046	0.04	-0.006	0.02
# of adults in HH.	0.007	0.05	0.042	0.06	-0.055*	0.03
Total income log	-0.015	0.03	-0.023	0.03	0.009	0.02
Total net worth log	-0.660***	0.17	-0.590**	0.19	0.281***	0.08
N	12,392		5,875		11,487	
-2DLL	6,543.92		4,000.63		14,410.20	
Likelihood Ratio	499.29***		258.67***		559.14***	
Wald	462.31***		242.89***		523.66***	

Note. Reference groups shown in parentheses. HH = household
*p<.05. **p<.01. ***p<001

When parental expectation (Model 2) or number of breakfasts (Model 4) were included in the regressions, the effects of net worth on each of the three child school outcomes

(i.e., repeated a grade, school expulsion, and interest in schoolwork) were diminished or removed. However, including parent-child interaction (Model 3) did not decrease the effect of net worth on any of the child school outcomes, and therefore, it was omitted from the final model (Model 5).

When we included the combination of parental expectation and number of breakfasts in Model 5, the effects of net worth on school expulsion and interest in schoolwork were removed, and the absolute points of coefficients of assets on repeated a grade decreased by 21.4%.

Regarding other covariates in full model (Model 5), significances and directions of each covariate were very similar to the models without any mediators (Model 1) except primary caregiver education and number of adults living in the household. However, when we included two mediators—parental expectation and number of breakfasts—the effects of caregiver education level on child school outcomes were diminished, and the effects of number of adults in the household became nonsignificant for a child's interest in schoolwork.

The direct impacts of three possible mediators (i.e., parental expectation, parent-child interactions, and number of breakfasts) on outcomes of repeating a grade and school expulsion were also tested in Models 2, 3, and 4 to evaluate a criterion for a mediator. Both parental expectation and number of breakfasts were found significant for all child school outcomes in this study; however, parent-child interaction was shown to be a significant predictor only for the child's interest in schoolwork.

Assets and parenting involvement and parent expectation

Table 4 shows the outcomes of ordinary least squares regressions (OLS) on parent-child interaction, parental expectation, and number of breakfasts. After controlling for demographics of both the child and the primary caregiver, the level of household net worth was found a significant and strong predictor of both parental expectation ($p<.001$) and the number of breakfasts with the child each week ($p<.001$). However, household net worth was not a significant predictor for parent-child interaction. These results supported the direct effect of assets on parental expectation and parent involvement measured by number of breakfasts.

Table 3. Estimates from logistic regression models of child school outcome measures with mediators (continued next page)

	Repeated a grade				
Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	5.096*	5.249*	5.028*	4.987*	5.134
Child gender (boy)	0.467***	0.428*	0.468***	0.465***	0.425***
Child age	0.142***	0.127***	0.143***	0.134***	0.121***
Primary caregiver					
Gender (female)					
(Male)					
Female	0.008	0.059	0.007	0.013	0.064
Age	-0.012*	-0.012*	-0.012*	-0.012*	-0.011*
Race/Ethnicity					
(White)					
Black	0.349***	0.483***	0.352***	0.323***	0.460***
Hispanic	-0.365***	-0.231*	-0.362***	-0.377***	-0.244*
Other	-0.084	-0.015	-0.079	-0.106	-0.030
Education					
Less high	0.361***	0.264**	0.362***	0.348***	0.260**
(High school grad.)					
Some college	-0.296***	-0.205*	-0.297***	-0.292***	-0.204*
College grad. +	-0.368**	-0.204	-0.369**	-0.363**	-0.202
Marital status					
Married	-0.295***	-0.243**	-0.296***	-0.270**	-0.222**
(Non-married)					
Work status					
(Full time)					
Part time	0.014	0.025	0.013	0.032	0.043
No work	0.369***	0.351***	0.366***	0.400***	-0.066***
Residency					
Metro area	-0.144	-0.066	-0.143	-0.140	-0.202
(Non-metro area)					
# of children in HH	0.049	0.0004	0.049	0.050	0.064
# of adults in HH	0.007	-0.019	0.008	0.008	-0.011
Total income log	-0.015	-0.006	-0.016	-0.015	-0.006
Total net worth log	-0.660***	-0.540***	-0.660***	-0.633***	-0.519**
Parent expectation	---	-0.455***	---	---	-0.446***
Parent-child interactions	---	---	0.010	---	---
Days breakfast with a child	---	---	---	-0.067***	-0.056***
N	12,392	12,392	12,392	12,392	12,392
-2DLL	6,543.92	6,371.42	6,543.69	6,543.69	6,353.71
Likelihood Ratio	499.29***	671.78***	499.52***	499.52***	689.49***
Wald	462.31***	626.68***	462.52***	462.52***	638.08***

Note. Reference groups shown in parentheses. HH = household
*p<.05. **p<.01. ***p<001

Table 3. Estimates from logistic regression models of child school outcome measures with mediators (continued next page)

	Expelled from school				
Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	4.219	3.721	4.609	4.232	3.716
Child gender (boy)	0.664***	0.631***	0.658***	0.664***	0.625***
Child age	0.133***	0.122***	0.128***	0.117***	0.108***
Primary caregiver					
Gender (female)					
(Male)					
Female	0.343	0.459*	0.342	0.346	0.469*
Age	-0.023***	-0.019**	-0.023***	-0.022**	-0.019**
Race/Ethnicity					
(White)					
Black	0.326**	0.479***	0.316**	0.309**	0.467***
Hispanic	-0.508***	-0.356*	-0.523***	-0.509***	-0.358*
Other	-0.065	0.019	-0.090	-0.077	0.019
Education					
Less high	0.365**	0.284*	0.356**	0.346**	0.278*
(High school grad.)					
Some college	-0.126	-0.005	-0.121	-0.123	-0.007
College grad. +	-0.165	0.027	-0.163	-0.170	0.022
Marital status					
Married	-0.531***	-0.466***	-0.528***	-0.498***	-0.441***
(Non-married)					
Work status					
(Full time)					
Part time	0.192	0.195	0.199	0.218	0.224
No work	0.301**	0.256*	0.314**	0.337**	0.287**
Residency					
Metro area	0.160	0.294**	0.158	0.153	0.282**
(Non-metro area)					
# of children in HH	0.046	0.001	0.044	0.043	-0.001
# of adults in HH	0.042	-0.007	0.038	0.050	0.006
Total income log	-0.023	-0.012	-0.020	-0.027	-0.016
Total net worth log	-0.590**	-0.409*	-0.594**	-0.552**	-0.381
Parent expectation	---	-0.583***	---	---	-0.562***
Parent-child interactions	---	---	-0.045	---	---
Days breakfast with a child	---	---	---	-0.118***	-0.100***
N	5,875	5,875	5,875	5,875	5,875
-2DLL	4,000.63	3,818.01	3,996.92	3,952.49	3,785.09
Likelihood Ratio	258.67***	441.28***	262.37***	306.81***	474.20***
Wald	242.89***	400.30***	246.11***	279.83***	421.51***

Note. Reference groups shown in parentheses. HH = household
*p<.05. **p<.01. ***p<001

Table 3. Estimates from logistic regression models of child school outcome measures with mediators

	Interested in schoolwork				
Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	-2.697*	-3.380**	-0.400***	-2.605*	-3.290**
Child gender (boy)	-0.574***	-0.544***	-0.570***	-0.578***	-0.548***
Child age	-0.081***	-0.069***	-0.067***	-0.070***	-0.060***
Primary caregiver					
Gender (female)					
(Male)					
Female	0.013	-0.025	-0.010	0.012	-0.025
Age	0.011***	0.011***	0.012***	0.010**	0.010**
Race/Ethnicity					
(White)					
Black	0.056	-0.077	0.110	0.089	-0.047
Hispanic	0.398***	0.254***	0.471***	0.413***	0.270***
Other	0.345***	0.299**	0.428***	0.372***	0.319**
Education					
Less high	-0.138*	-0.024	-0.106	-0.116	-0.008
(High school grad.)					
Some college	0.117*	-0.005	0.110*	0.108*	-0.011
College grad. +	0.269***	0.047	0.267***	0.261***	0.044
Marital status					
Married	0.274***	0.225***	0.266***	0.245***	0.200***
(Non-married)					
Work status					
(Full time)					
Part time	-0.019	-0.064	-0.050	-0.047	-0.090
No work	0.002	0.030	-0.033	-0.038	-0.007
Residency					
Metro area	0.091	-0.020	0.091	0.082	-0.027
(Non-metro area)					
# of children in HH	-0.006	0.048**	0.003	-0.005	0.049**
# of adults in HH	-0.055*	-0.025	-0.040	-0.055*	-0.025
Total income log	0.009	0.0004	0.002	0.010	0.001
Total net worth log	0.281***	0.134	0.284***	0.250**	0.110
Parent expectation	---	0.675***	---	---	0.664***
Parent-child interactions	---	---	0.174***	---	---
Days breakfast with a child	---	---	---	0.079***	0.069***
N	11,487	11,487	11,487	11,487	11,487
-2DLL	14,410.20	13,627.71	14,210.10	14,303.83	13,553.15
Likelihood Ratio	559.14***	1341.63***	759.24***	665.51***	1416.19***
Wald	523.66***	1148.36***	695.35***	615.31***	1200.76***

Note. Reference groups shown in parentheses. HH = household
*p<.05. **p<.01. ***p<001

Among other covariates, child's age and the primary caregiver's race/ethnicity, education, marital status, and work status were found to be significant determinants for all three mediators (i.e., parent-child interactions, parental expectation, and number of breakfasts). The child's age was shown to have a negative relationship to parent–child interaction ($p<.001$), parental expectation ($p<.001$), and number of breakfasts ($p<.001$). Compared to White primary caregivers, primary caregivers who were Black, Hispanic, or other race/ethnicity reported less time playing with and praising their children ($p<.001$), and fewer breakfasts with their children. However, primary caregivers who were Black, Hispanic, or other race/ethnicity reported higher academic achievement expectations for their children as compared to White primary caregivers.

In addition, primary caregivers who had less than a high school education reported fewer parent-child interactions and lower parental expectations as compared to primary caregivers who were high school graduates. Married primary caregivers reported greater parent involvement and higher parental expectations for their children when compared with non-married primary caregivers. Further, although unemployed primary caregivers reported more parent-child interactions and more breakfasts per week with the child, these caregivers reported lower parental expectations for their children as compared with primary caregivers who worked full-time.

Household characteristics, especially household composition, were shown to be significant in several areas. When controlling for a primary caregiver's marital status, both the number of children living in the household and the number of adults living in the household were found to be significant and negative determinants for parent-child interaction and parental expectation. However, we found total household income was significant and positively related to parent-child interaction and parental expectation for their children.

In summary, this study found that the effect of parental assets was partially mediated (for repeating a grade) and fully mediated (for school expulsion and interest in schoolwork) by two mediators: parental expectation and number of breakfasts. Specifically, this study found that: (a) parental assets were a significant predictor of all child school outcomes included in

our study; (b) parental assets were a significant predictor of parental expectations and parent involvement measured by number of breakfasts with the child per week; (c) two mediators (parental expectations and number of breakfasts) were significant determinants of child school outcomes; and (d) when controlling for household net worth, household income was found to be a nonsignificant predictor of the child school outcomes included in our study.

Discussion

The purpose of this study was to examine the effects of parental assets on child academic outcomes, parent-child involvement, and parental expectations. Consistent with other research, our findings indicated that parental assets were a significant predictor of the measured child academic outcomes (Scanlon & Page-Adams, 2001; Williams, 2004; Zhan, 2006). Interestingly, although we found that assets were a significant predictor of all child school outcomes, we also found that household income was not significantly related to these measures. Study findings also showed that asset ownership was associated with (a) parental expectations for their child's educational achievement, and (b) the parental involvement variable that measured the number of days a parent eats breakfast with their child each week. In addition, parental expectations and the number of days the primary caregiver ate breakfast with their child were both significant mediators between assets and child school outcomes.

The findings of this study are consistent with other research and provide additional evidence of a relationship between asset ownership and parental expectations for their child's education. Further, the findings support that the relationship between assets and parental expectations mediates the impact of assets on a child's academic performance (Zhan, 2006). This finding is in line with both the theory and research that has explored how asset holding can change an individual's outlook as well as their plans for the future, which, in turn, can affect their behaviors and habits (DiPasquale & Glaeser 1999; Rossi & Weber, 1996; Scanlon 2001; Sherraden, 1991; Shobe & Page-Adams, 2001; Yadama & Sherraden, 1996). Similar results

Table 4. OLS regression models of three measures of parent-child involvement and parent expectation

Variables	Parent-child involvement		Parent expectation		Days breakfast with a child	
	b	S.E.	b	S.E.	b	S.E.
Intercept	7.11***	0.57	1.99***	0.30	-0.70	0.93
Child gender (boy)	-0.07**	0.03	-0.10***	0.02	-0.03	0.05
Child age	-0.09***	0.004	-0.03***	0.002	-0.13***	0.01
Primary caregiver						
Gender						
(Male)						
Female	0.14*	0.07	0.07	0.04	0.01	0.11
Age	-0.003	0.002	0.001	0.001	0.01***	0.004
Race/Ethnicity						
(White)						
Black	-0.29***	0.04	0.20***	0.02	-0.44***	0.07
Hispanic	-0.36***	0.04	0.25***	0.02	-0.18*	0.07
Other	-0.40***	0.07	0.08*	0.04	-0.32**	0.11
Education						
Less high	-0.18***	0.05	-0.20***	0.03	-0.27***	0.08
(High school grad.)						
Some college	0.06	0.04	0.19***	0.02	0.15*	0.06
College grad. +	0.04	0.04	0.34***	0.02	0.20**	0.07
Marital status						
Married	0.08*	0.04	0.10***	0.02	0.41***	0.06
(Non-married)						
Work status						
(Full time)						
Part time	0.16***	0.04	0.04*	0.02	0.35***	0.06
No work	0.20***	0.04	-0.04*	0.02	0.58***	0.06
Residence						
Metro area	0.004	0.03	0.16***	0.02	0.15**	0.06
(Non-metro area)						
# of children in HH.	-0.05***	0.01	-0.08***	0.01	-0.02	0.02
# of adults in HH.	-0.08***	0.02	-0.04***	0.01	-0.02	0.03
Total income log	0.042***	0.01	0.01*	0.01	-0.002	0.02
Total net worth log	0.02	0.04	0.15***	0.02	0.36***	0.07
N	12,392		12,392		12,392	
R^2	0.07		0.10		0.06	
F	49.88***		78.59***		46.85***	

Note. Reference groups shown in parentheses. HH = household
*p<.05: **p<.01: ***p<001

have been seen in research on IDA programs, which are an initiative aimed at fostering asset accumulation among low-income participants by promoting saving toward asset-building purposes. Examples of these changes include increased

self-confidence, increased hope for the future, increased ability to set and achieve goals, greater sense of responsibility, and reduced levels of stress. Moreover, some IDA participants with children have reported feeling reassured that their savings would benefit their children by paying for their children's education, improving their living environment, or generally providing for their children's future (McBride, Lombe, & Beverly, 2003; Sherraden et al., 2005).

Research has provided mixed findings regarding which types of parental involvement activities are most beneficial to child outcomes. Parental involvement in school has been significantly associated with positive child outcomes, and, although to a lesser extent, parental involvement in the home has also been shown significant (Barnard, 2004; Fan & Chen, 2001). In our study, the number of breakfasts was found to be significantly positive for all child school outcomes, and the effect of assets on child school outcomes was found to be mediated by the number of breakfasts with a child a week. In their analysis of over 20 studies that examined the relationship between breakfast habits and academic performance of children, Rampersaud, Pereira, Girard, Adams, and Metzl (2005) reported that many studies found a significant effect between children and adolescents eating breakfast and academic achievement. This academic achievement may be the product of improved nutrition that promotes better concentration in school among these children. On the other hand, the higher academic achievement of children who share breakfast with a caregiver may be the result of interaction with the adult during that time. For example, parents who eat breakfast with their child may be more likely to provide emotional support and encouragement regarding a child's school performance than parents who do not breakfast with their child. Further research is needed to clearly identify the factor or combination of factors that produce the improved academic outcomes. However, researchers are careful to note that a child's socioeconomic status is an important variable when considering the breakfast and academic relationship (Rampersaud et al., 2005). This research finding provides new evidence that eating breakfast with a child is a positive parenting practice that influences educational outcomes. Eating breakfast with a child is a health

habit that may have positive effects for both social and emotional reasons.

Conclusion

By examining the effect of parental assets on child school outcomes and parental expectations and involvement, this study provides additional support for the inclusion of assets in measurements of child and family economic well-being. In line with other research that has demonstrated that income alone is insufficient as a predictor of child outcomes (Gershoff, Raver, Aber, & Lennon, 2007), our study found that income was not a significant predictor of any of the child school outcomes, although assets were shown a significant predictor for all of the child school outcomes. This study also provided information useful for a range of policies and programs directed toward children and families. The findings support the importance of developing and including wealth and asset-based interventions in efforts aimed at addressing child and family poverty. For example, interventions focused on improving parenting skills, strengthening family functioning, or improving child school outcomes should consider exploring the inclusion of a financial component, specifically asset-based programming.

References

Aaronson, D. (2000). A note on the benefits of homeownership. *Journal of Urban Economics, 47*(3), 356-369

Barnard, W. M. (2004). Parent involvement in elementary school and educational attainment. *Children and Youth Services Review, 26*, 39-62.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategies, and statistical considerations. *Journal of Personality and Social Psychology, 5*, 1173-1182.

Cho, E. Y. (2001). *The effects of tangible assets and human capital on the economic well-being of women after marital disruption.* Unpublished doctoral dissertation. Center for Social Development, Washington University in St. Louis.

Conley, D. (2001). Capital for college: Parental assets and postsecondary schooling. *Sociology of Education, 74,* 59-72.

Costello, E. J., Compton, S. N., Keeler, G., & Angold, A. (2003). Relationships between poverty and psychopathology: A natural experiment. *Journal of the American Medical Association, 290,* 2023–2029.

Duncan, G. J., & Brooks-Gunn, J. (1997). Income effects across the life span: Integration and interpretation. In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 596–610). New York: Russell Sage Foundation.

Elliot, W. (2007). *Increasing parent expectations via college savings: Closing the achievement gap* (Working Paper No. 07-08). St. Louis, MO: Center for Social Development, Washington University in St. Louis.

Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review, 13*(1), 1-22.

Gershoff, E. T. (2003). Low income and the development of America's kindergartners. In *Living at the Edge* (Research Brief No. 4). New York: National Center for Children in Poverty. Retrieved July 12, 2007, from http://www.nccp.org/pub_lat03d.html

Gershoff, E. T., Raver, C. C., Aber, J. L., & Lennon, M. C. (2007). Income is not enough: Incorporating material hardship into models of income associations with parenting and child development. *Child Development, 78,* 70-95.

Green, R. K., & White, M. J. (1997). Measuring the benefits of homeowning: Effects on children. *Journal of Urban Economics, 41,* 441-461.

Kane, T. J. (1994). College entry by Blacks since 1970: The role of college costs, family background, and the returns to education. *Journal of Political Economy, 102,* 878-907.

MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science, 1,* 173-181.

Mayer, S. E. (1997). *What money can't buy: Family income and children's life chances.* Cambridge, MA: Harvard University Press.

McBride, A. M., Lombe, M., & Beverly, S. G. (2003). The effects of Individual Development Account programs: Perceptions of participants. *Social Development Issues, 25*(1&2), 59-73.

Morris, P. A., & Gennetian, L. A. (2003). Identifying the effects of income on children's development using experimental data. *Journal of Marriage and Family, 65,* 716–729.

Oliver, M. L., & Shapiro, T. M. (1995). *Black wealth/White wealth: A new perspective on racial inequality.* New York: Routledge.

Rampersaud, G. C., Pereira, M. A., Girard, B. L., Adams, J. A., & Metzl, J. D. (2005). Breakfast habits, nutritional status, body weight, and academic performance in children and adolescents. *Journal of the American Dietetic Association, 105,* 743- 760.

Rossi, P. H., & Weber, E. (1996). The social benefits of homeownership: Empirical evidence from national surveys. *Housing Policy Debate, 7*(1), 1-35.

Scanlon, E. (2001). *Toward a theory of financial savings and child well-being: Implications for research on a child and youth savings account policy demonstration.* (Research Background Paper, CYSAPD 01-11). St. Louis, MO: Center for Social Development, Washington University in St. Louis.

Scanlon, E., & Page-Adams, D. (2001). Effects of asset holding on neighborhoods, families, and children: A review of research. In R. Boshara (Ed.), *Building assets* (pp. 25-50). Washington DC: Corporation for Enterprise Development.

Sherraden, M. (1991). *Assets and the poor: A new American welfare policy.* Armonk, New York: M. E. Sharpe.

Sherraden, M., McBride, A., Johnson, E., Hanson, S., Ssewamala, F., & Shanks, T. (2005). *Saving in low-income households: Evidence from interviews with participants in the American Dream Demonstration.* St. Louis, MO: Center for Social Development. Washington University in St. Louis.

Shobe, M., & Page-Adams, D. (2001). Assets, future orientation and well-being: Exploring and extending Sherraden's framework. *Journal of Sociology and Social Welfare, 28*(3), 109-127.

Williams, T. R. (2004). *The impacts of household wealth on child development* (Working paper No. 04-07). St. Louis, MO: Center for Social Development, Washington University in St. Louis.

Wolff, E. N. (1995). *Top heavy: A study of the increasing inequality of wealth in America.* New York: Twentieth Century Fund Press.

Wolff, E. N. (2000). *Recent trends in wealth ownership, 1983-1998.* Annandale-on-Hudson, NY: The Levy Economics Institute of Bard College.

Yadama, G. N., & Sherraden, M. (1996). Effects of assets on attitudes and behaviors: Advance test of a social policy proposal. *Social Work Research, 20*(1), 3-11.

Zhan, M. (2006). Assets, parental expectations and involvement, and children's educational performance. *Children and Youth Services Review, 28*, 961-975.

Zhan, M., & Sherraden, M. (2003). Assets, expectations, and children's educational achievement in female-headed households. *Social Service Review, 77*, 191-211.