

# The Impacts of Household Wealth on Child Development

Trina R. Williams Shanks

**ABSTRACT.** This study examines the influence of wealth relative to income across several child development outcomes using data from the Panel Study of Income Dynamics. The wealth measures include net worth and specific asset holdings. The child outcome measures include two cognitive achievement scores and one behavior problem score. Analyses use OLS regression to test whether wealth has explanatory power distinct from income. Results show that wealth is a significant predictor for the applied problem math score and reported behavior problems. Implications and a brief introduction to asset-building programs that focus on children are discussed. doi:10.1300/J134v11n02\_05 [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2006 by The Haworth Press, Inc. All rights reserved.]

**KEYWORDS.** Wealth, income, child development, asset building, PSID

## INTRODUCTION

Some young people are doing well in school with no reported high risk behaviors. Others report some combination of behaviors—such as

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The author wishes to thank Michael Sherraden, Kristine Siefert, and David Williams for reviewing drafts of the original manuscript and providing comments as well as the anonymous reviewers that also helped strengthen the paper.

Journal of Poverty, Vol. 11(2) 2007  
Available online at <http://jpov.haworthpress.com>  
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doi:10.1300/J134v11n02\_05

substance use, sexual activity, delinquency, and school under achievement—that may put them at risk for not making a successful transition into adulthood. Dryfoos (1998) estimates that 40% of U.S. 14-year-olds fall into the low-risk category, 25% are at moderate risk, and 35% are at high risk. Where young people find themselves on this continuum is highly dependent on the resources (both social and economic) upon which they can draw. Those who come from households with greater socioeconomic resources are more likely to be on track academically and not engage in risky behaviors, while those who come from situations of socioeconomic disadvantage are more likely to be at higher risk.

How each child evolves is a “dynamic and continuous interaction between biology and experience” and is influenced by culture, human relationships, and a child’s own individual pathways (Shonkoff & Phillips, 2000, pp. 3-4). Although children are malleable and always can make advances, the poor academic performance, early behavior problems, and other difficulties often faced by children growing up in low-SES households put them at greater risk in adolescence and into adulthood (Chase-Lansdale, 1999; Shonkoff & Phillips, 2000).

Discussions of the relationship between socioeconomic status (SES) and child development outcomes typically include measures of income, parental education, and sometimes occupation, but most do not consider household wealth. A wide range of research and empirical findings examines the impact of income on child development outcomes. Many of these studies focus particularly on income poverty, which is calculated based on household income using official federal thresholds adjusted for household size. These empirical studies consistently find that children from income-poor households do worse on a variety of outcomes ranging from academic achievement to health to behavior problems (Aber, Bennett, Conley, & Li, 1997; Chase-Lansdale, 1999; Corcoran, 1995; Duncan & Brooks-Gunn, 1997a; Duncan, Yeung, Brooks-Gunn, & Smith, 1998; Guo & Harris, 2000; Hill & Sandfort, 1995; Parker, Greer, & Zuckerman, 1988). However, evidence suggests that the long-term economic status of a household is more important than income poverty in one particular year. Specifically, permanent income (averaged over multiple years) seems to be more important than the timing of income or fluctuations, even though a large drop in income (> 35%) can be harmful, especially when unexpected (Blau, 1999; Mayer, 1997; Shonkoff & Phillips, 2000; Solon, 1992).

Children seem to be particularly sensitive to the effects of income poverty in early childhood. In fact, in several models, income is a

significant predictor of children's performance on measures of ability in early and middle childhood, but not in adolescence (Duncan & Brooks-Gunn, 1997b; Duncan et al., 1998; Guo, 1998). And it seems that income is a better predictor of academic achievement than it is of social and emotional development (Duncan & Brooks-Gunn, 1997a; Haveman & Wolfe, 1995).

Some researchers have looked at SES more broadly, considering the impact of economic stress on parenting and child outcomes (Conger, Conger, & Elder, 1997), while others have examined neighborhood effects and home ownership (Aaronson, 2000; Brooks-Gunn, Duncan, & Aber, 1997; Green & White, 1997; Harkness & Newman, 2003; Scanlon & Page-Adams, 2000). Unfortunately, there is not a federal standard for measuring "asset-poverty." Haveman and Wolff (2000) define the concept as having insufficient wealth (typically, net worth) to sustain a household at the federal poverty line for 3 months if income sources should fail. Although home equity is a component of wealth and having financial assets can be a buffer for economic stress, in most models the emphasis has been on income. This may be largely because the effects of income are well understood and income data are now collected in most research samples.

In the last decade, however, with more attention being given to wealth as an indicator of inequality, several authors have included it as an aspect of household SES when considering child outcomes (Conley, 1999; Orr, 2003; Phillips, Brooks-Gunn, Duncan, Klebanov, & Crane, 1998; Shapiro, 2004). Also, these studies often examine racial disparities, given the large differences in wealth across racial groups.

Conley (1999) tests the hypothesis that most of the differences attributed to race are actually class differences defined primarily by wealth. Using Panel Study of Income Dynamics (PSID) data to measure the adult outcomes of children born since 1962, Conley analyzes differences in net worth, high school graduation, college graduation, repeating a grade, labor force participation, wages, welfare receipt, and pre-marital childbearing (for daughters). He finds that racial differences are either no longer significant or dramatically less once parental wealth is added to the equation. He argues that to understand the life chances of children, it is necessary to take into account accumulated wealth, which would include property, assets, and net worth.

Shapiro (2004) makes a similar case using qualitative interviews to demonstrate how parents use either personal wealth or money inherited from their parents' wealth to create transformative opportunities for children, particularly via enrollment in better schools. He found that families and communities use economic resources to create advantages that

benefit themselves, often by default leaving a more disadvantaged public infrastructure for everyone else.

Using National Longitudinal Survey of Youth data, Orr (2003) analyzes the influence of household wealth on math achievement scores. She finds that even controlling for parental education, occupation, and family income, wealth has a positive effect on scores and seems to explain a portion of the Black-White achievement gap. Phillips et al. (1998) fail to find an effect of wealth on verbal achievement among children between ages five and six, though this may be due to the young age of the sample.

### ***Racial Differences in Wealth***

Racial inequality with respect to wealth is high—with Blacks and Hispanics having much lower levels of wealth than Whites. On a descriptive basis, the difference in net worth is often a factor of ten or greater. Even when controlling for known class correlates such as income, occupation, and education, wealth differences by race persist (Blau & Graham, 1990; Keister, 2000; Oliver & Shapiro, 1995/2006; Shapiro, 2004; Wolff, 2000b). According to a recent census report, median net worth in 2000 was \$79,400 for non-Hispanic Whites and \$7,500 and \$9,750 for Black and Hispanic households, respectively (Orzechowski & Sepielli, 2003). Similarly, at 46%, homeownership rates for Blacks and Hispanics are substantially lower than the U.S. average rate of 66% and that of non-Hispanic Whites at 72% (U.S. Census Bureau, 2004).

Discrimination, both historical and current, contributes to the racial disparities in wealth. Oliver and Shapiro (1995/2006) explain how racially biased state policies and barriers to self-employment have led to a sedimentation of inequality, creating a context in which Black children are more likely to grow up in households with lower levels of wealth. To provide one historical example, land policy in the late 19th century failed to help the 4 million newly freed slaves to become landowners, while in contrast European immigrants received much of the 246 million acres granted as homestead property (Shanks, 2005).

Even limiting the focus to contemporary circumstances, Blacks and Hispanics (particularly men) work fewer hours, earn less money, and struggle more to progress economically than their White counterparts (Farley, 1996; U.S. Census Bureau, 2000). In addition, discrimination in housing markets has led to high levels of residential segregation where Blacks and Hispanics are more likely to live in areas of concentrated

poverty and lower property values (Briggs, 2005; Jargowsky, 1997; Massey & Denton, 1993). In fact, segregation alone is considered a primary determinant of racial differences in economic circumstances, educational attainment, and health status (Williams & Collins, 2004).

These historical and contemporary inequities have led to differences in wealth accumulations and the reality that non-White households have less to pass along in the form of material assets or even exposure to sound financial stewardship and planning. As a result, Whites are more likely than Blacks and Hispanics to receive inheritances (Menchik & Jianakoplos, 1997; Wolff, 2000a, 2002). Blacks also are less likely to invest in stocks and high-risk, high-return assets (Brimmer, 1988; Keister, 2000). This may be because Black children grow up in households where parents are less likely to own stocks, which then in turn influences their own portfolio decisions (Chiteji & Stafford, 1999). In addition, middle class Blacks experience greater poverty within their kin networks (parents and siblings), which seems to affect asset accumulation negatively (Chiteji & Hamilton, 2000).

### ***Why Wealth Is Important***

In addition to an empirical case, there are several theoretical rationales as to why wealth should be included when examining the relationship between SES and child outcomes:

1. *Wealth is an independent predictor of child development outcomes, picking up aspects of SES that income misses.* Some theorize that wealth is distinct from income in that it represents an accumulated stock rather than a passing flow of resources. Assets are hypothesized to improve household stability, increase personal efficacy, increase political participation, create an orientation toward the future, enable focus or specialization, and provide a foundation for risk taking (Sherraden, 1991). Household assets also have attractive features such as providing economic security, not requiring a time/leisure trade-off, lighter taxation, and the possibility of being enjoyed without being consumed (Spilerman, Lewin-Epstein, & Semyonov, 1993). Households may even adopt strategies to convert to more illiquid forms of assets and resist the temptation to dissave, viewing this accumulated wealth differently than income (Beverly, Moore McBride, & Schreiner, 2003). Assets have been demonstrated to help families better deal with unemployment and recover from economic loss (Yeung & Hofferth, 1998). Liquid

forms of wealth that are easily transferable (cash in the bank, stocks and bonds) may be most relevant for evaluating household economic position and child well-being (Conley, 1999; Haveman & Wolff, 2000; Orr, 2003).

2. *Wealth is similar to income in that it is an indicator of parental resources and ability to provide for children, but it does a better job of capturing long-term SES.* Although the correlation between wealth and income tends to be about .32, it is also important to note that wealth remains more stable across generations than does income (Diaz-Gimenez, Quadrini, & Rios-Rull, 1997; Mulligan, 1997). In practical terms, a household may view and spend their income differently if it expects to get an inheritance, knows that a member could profit from or participate in a family business, or has a home and other major expenses already paid off.
3. *The individual attitudes and long-term perspective that allow parents to accumulate and maintain wealth are also the attitudes and perspective that allow them to plan for their children's futures and provide opportunities that make them more likely to achieve success as they enter adulthood.* Parents with wealth may invest more in the quality rather than quantity of children (Chiswick, 1988), be more future-oriented (Lawrance, 1991), value education, and hold high educational expectations for their children.
4. *Households with non-trivial amounts of wealth live in structural environments distinct from those with little or no wealth.* Their children are exposed to opportunities, social capital, and cultural capital that make it more likely for them to have future success. Building upon Bourdieu's work, households that are familiar with the dominant culture live in a *habitus* that leads to knowledge of culturally significant cues. Upon entering school, children from such households will have learned habits, traits, and tastes that can help them to succeed educationally (Bourdieu, Passeron, & Nice, 1990). In addition, they are more likely to interact with others with similar backgrounds. Orr (2003) also found evidence that increased exposure to such cultural capital may be a main benefit of wealth.

Children in low-income households with some wealth are likely to fare better than children growing up in households with similar income but no wealth. Regardless of income level, knowing that a household has nontrivial amounts of wealth provides relevant information about access to additional resources. Acknowledging and examining

the influence of these resources is important. This paper contributes to the growing body of work examining the impact of household wealth on child outcomes in two ways. First, it focuses on young children, extending previous work such as Conley (1999), who studied the effect of wealth on older children (once they became young adults), as well as researchers who have considered a more narrow age range. Second, it examines multiple outcomes for these young children. Building upon work that considered a single academic outcome, it includes both behavioral and academic achievement outcomes, allowing a comparison. This study seeks to advance what is known by specifying and examining the impact of several measures of wealth and assets on multiple child development outcomes for Black, White, and Hispanic children between the ages of 3 and 12.

The first research question is simply: What is the benefit of including household wealth as a measure of SES when examining developmental outcomes for young children? This study will not be able to distinguish clearly between the theoretical reasons mentioned previously or make a definitive case for the causal effect of wealth on child development. However, the analysis will compare income and wealth within a hierarchical regression to examine if wealth adds explanatory power to the model in addition to income, perhaps reducing the effect of income.

The second research question is: Do racial disparities in child outcomes decline as wealth is added to the regression model? This question reflects the idea that large and longstanding differences in wealth by race may be an important contributing factor to differences in child outcomes between Blacks and Hispanics in comparison with Whites.

## **METHODS**

### ***Sample***

This study utilizes data from the PSID, a nationally representative longitudinal survey of U.S. individuals and families that began in 1968. Data on employment, income, and a rich set of correlates have been collected annually, with questions on wealth added beginning in 1984. In 1997, a Child Development Supplement (CDS) was drawn from PSID households in order to collect a wide range of data on parents and their young children (ages 0-12). Along with information on the cognitive, behavioral, and health status of these children, there are also data



on the mother's cognitive ability and overall well-being (Hill, 1992; Hofferth, Davis-Kean, Davis, & Finkelstein, 1997).

This analysis examines outcomes for White (51%), Black (41%), and Hispanic (8%) children. Asians, Native Americans, and "others" are found in the full sample but are excluded here because the counts are too small. Because the PSID initially oversampled low-income families, there are more Blacks than would be expected based on the overall population. The statistical analyses include children of the head of household between the ages of 3 and 12 who live with their biological or adoptive mothers. The children reside in families that completed the CDS household and child development questionnaires, for which we also have wealth data in 1994. Analyses of the full sample utilize weighted data to resemble nationally representative proportions more closely. For within-race analyses, unweighted data are used. The data set was obtained from the Survey Research Center of the Institute for Social Research, University of Michigan, and downloaded from their Internet-based Data Center (<http://simba.isr.umich.edu>).

### *Measures*

*Child well-being.* In this analysis, the outcomes of interest are two cognitive achievement scores and one behavior problem score. The CDS assesses achievement through the Woodcock-Johnson Achievement Test-Revised (Woodcock & Johnson, 1989). The test measures achievement and is not an indicator of IQ. The analyses in this study use the two age-standardized reading and math subscales given to all children between the ages of 3 and 12: letter-word identification and applied problem. The letter-word identification subscale tests for symbolic learning (matching pictures with words) as well as reading identification skills. The applied problems subscale measures skill in solving practical problems in mathematics. The child's externalizing and internalizing behavior problems were assessed by mother report using a version of the Behavior Problem Index utilized in the National Longitudinal Survey of Youth (Achenbach & Edelbrock, 1981, 1984; Hofferth et al., 1997). The index contains 30 items asking the primary caregiver whether each identified behavior is often, sometimes, or never true. This analysis uses the total score, which measures the severity of child behavior, and has a Cronbach's alpha of .90 (Hofferth et al., 1997).

This analysis includes children from 3 to 12, which covers a wide age range. Given that the research intends to provide an overall picture of



the impact of wealth relative to income and other measures of SES across multiple child outcomes during early to mid-childhood, it does focus on a broad period of development. However, age of child is also included as a control to capture any variance across developmental periods.

*Permanent income.* This is a continuous variable summing total household income from the previous tax year, including all taxable income, transfer income, and Social Security income for anyone in the family unit. Because income averaged over multiple years is the best estimate of permanent income (Blau, 1999; Mayer, 1997), a four-year average (1994-1997) is used when the data are available. Otherwise, the maximum number of income data points available between 1994 and 1997 are used. This average family income used in the analysis is inflated to 1997 price levels using the Consumer Price Index (CPI-U), then top-coded at \$200,000 and scaled in \$10,000 increments.

*Wealth measures.* Wealth is a continuous variable calculating household net worth, summing separate values for a business, checking or savings accounts, real estate, stocks or IRA accounts, and other assets, subtracting credit card and other debt. Data are from 1994 and include main home equity. The distribution is quite skewed, with multiple zero responses as well as extreme positive and negative values. Using PSID data from this same period, Gittleman and Wolff (2004) suggest using quantiles or truncating the top and bottom percentiles. Before choosing a measure of wealth to use in the full regression model, several alternative measures were explored to establish the relationship between wealth and each dependent variable (results are in the following section).

*Demographic controls.* Controls used in this study are divided into child characteristics and parental (or family) characteristics. Child characteristics include gender, race, ethnicity, and age. The analyses also control for number of children in the family, whether the head of household is female, and years of completed education of the household head. These control variables, which are used in similar studies, draw upon the replication guidelines utilized in a volume examining the consequences of growing up poor (Duncan & Brooks-Gunn, 1997a). In addition, when analyzing the cognitive achievement outcomes, a literary score that serves as a measure of mother's cognitive ability is used. The employment status of household head substitutes this variable as a control in analyses of the Behavior Problem Index.<sup>1</sup> Table 1 provides a detailed breakdown of all the key variables for the entire sample and by race.

TABLE 1. Sample Composition, by Race

Variable	N	Entire Sample		Blacks		Whites		Hispanics	
		M	(SD)	M	(SD)	M	(SD)	M	(SD)
Dependent Variables									
Letter-word identification	1602	103.6	(17.7)	98.30	(16.04)	107.77	(17.84)	102.00	(19.95)
Applied problems	1595	105.8	(17.6)	98.74	(15.92)	111.65	(16.83)	97.35	(10.65)
Behavior Problem Index	2102	40.0	(8.3)	40.57	(8.84)	39.70	(7.99)	39.24	(7.05)
Independent Variables									
Permanent income (average of 1994-1997)	2126	\$45,721	(36,053)	\$30,254	(23,925)	\$61,017	(39,332)	\$27,611	(20,460)
Homeownership	2126	0.60	(.49)	0.42	(.49)	0.75	(.43)	0.52	(.50)
Middle wealth (dummy)	1939	0.25	(.43)	0.24	(.43)	0.26	(.44)	0.23	(.43)
High wealth (dummy)	1939	0.25	(.44)	0.08	(.27)	0.39	(.49)	0.30	(.47)
Net worth, 1994	1939								
Mean		\$93,597	(359,187)	\$23,582	(63,239)	\$149,738	(474,432)	\$99,809	(204,167)
Median		\$17,100		\$3,700		\$42,400		\$21,500	
Change in net worth, 1994-99 (truncated)	1836	\$20,077	(46,889)	\$8,948	(34,874)	\$29,313	(52,936)	\$-247	(34,374)
Cash accounts (dummy)	1937								
Mean		0.65	(.48)	0.39	(.49)	.86	(.35)	0.77	(.43)
Debt/credit cards (dummy)	1937	\$8,491	(32,078)	\$3,246	(16,204)	\$12,730	(40,372)	\$7,731	(13,908)
Mean		0.52	(.50)	0.36	(.48)	.64	(.48)	0.67	(.48)
Stocks/IRA (dummy)	1937	\$5,564	(19,522)	\$2,694	(7,968)	\$7,896	(25,166)	\$4,737	(8,964)
Mean		.28	(.45)	0.10	(.30)	.42	(.49)	0.23	(.43)
Control Variables	1937	\$16,214	(129,199)	\$1,186	(6,771)	\$28,671	(173,845)	\$3,113	(8,150)
Number of children	2126	2.42	(1.06)	2.51	(1.27)	2.29	(.81)	2.79	(1.20)
Female head of household	2126	0.29	(.46)	0.52	(.50)	0.13	(.34)	0.14	(.35)
Education of head	2117	12.8	(2.6)	12.4	(1.8)	13.6	(2.3)	9.4	(3.9)
Parental skills test	1637	31.0	(5.49)	28.0	(5.36)	33.5	(3.99)	27.6	(5.90)
Employment status of head (% working)	2122	0.84	(.36)	0.73	(.45)	0.94	(.23)	0.81	(.39)

### *Alternative Measures of Wealth*

The relationship between alternative measures of wealth and the three child well-being outcomes are shown in Table 2. The net worth section compares two methods of transforming the skewed raw distribution in dollars into distinct measures of total net worth. These include a *trichotomous measure* that divides 1994 net worth (including home equity) into three categories: low wealth (below the median), middle wealth (from median to the 75% percentile), and high wealth (the upper

TABLE 2. Association Between Alternative Measures of Wealth and Child Outcomes: Standardized Betas (Standard Errors)

Child Outcome Wealth Construct	Letter Word Score	Applied Problem Score	Behavior Problem Index
1. Homeownership			
1 = homeowner	.07 (.04)	.09 (.04)**	-.06 (.03)
Net worth			
2. Trichotomous measure <sup>+</sup>			
a. Middle wealth			
1 = median to 75%	.07 (.03)*	.08 (.04)*	-.06 (.04)
b. High wealth			
1 = upper quartile	.13 (.05)**	.20 (.04)***	-.11 (.04)**
3. Continuous measure	.12 (.04)**	.20 (.04)***	-.12 (.04)***
Change in net worth between 1994 and 1999			
4. Continuous measure	.08 (.04)*	.08 (.03)*	-.09 (.03)**
5. Small change			
1 = Change < ±\$2,500	-.09 (.03)**	-.08 (.03)**	.02 (.03)
Specific asset holdings (log of actual value)			
6. Farm or business	.03 (.03)	-.01 (.04)	-.04 (.03)
7. Cash accounts	.17 (.04)***	.23 (.04)***	-.09 (.04)*
8. Debt/credit cards	.01 (.03)	-.07 (.03)*	.09 (.03)**
9. Other real estate	.03 (.03)	.05 (.04)	-.03 (.03)
10. Stocks/IRA	.12 (.04)**	.16 (.04)***	-.03 (.04)
11. Transportation/vehicle	.05 (.03)	.07 (.03)*	-.07 (.04)

Note: Each predictor represents a separate regression. All models are adjusted for permanent income.

+Household wealth below the median is excluded category.

\*p < .05, \*\*p < .01, \*\*\*p < .001.

quartile), and a *continuous measure*, where 1994 net worth is truncated at 0 and \$100,000. The change in net worth section of Table 2 compares two ways of examining net worth in 1994 subtracted from net worth in 1999. The first is a *continuous measure* truncated at \$-50,000 and \$125,500. The second is *small change*, in which the same difference in net worth is divided dichotomously into households falling between \$-2500 and \$2500 and those that had much higher shifts, whether positive or negative. The specific asset holdings section comprises the logged dollar values of each separate component of net worth. All 11 wealth measures are entered in a separate regression along with the permanent income measure to compare the relative importance of wealth. In these simple analyses, the net worth measures are always significant, while the more liquid assets (cash accounts and having stocks or an IRA) seem to be associated with higher achievement scores.<sup>2</sup>

*Analyses.* Hierarchical regressions are conducted to test how household wealth in 1994 impacts child well-being across the three outcome variables in 1997. The regressions are run across four models. The first model controls for the child-level characteristics, the second model controls for parental characteristics, the third model controls for permanent income, and net worth and the various specific asset variables are added in the fourth model. These are presented in a sequential fashion to test whether wealth contributes additional information to or perhaps cancels out income and other effects. The last column repeats the full final model but provides standardized Betas to allow comparisons of the relative strength of each independent variable.

*Academic achievement findings.* For the letter-word test, being female and the number and age of children are consistently significant control variable predictors (see Table 3). However, when parental control variables are added in Model II, being Black becomes insignificant. Education of household head, the parental cognitive skills test, and household income are the important parental control and SES predictors for this outcome variable. Although the coefficients of these three variables do drop slightly, little changes when wealth is added in Model IV. The block of wealth variables does not increase  $R^2$ , and none of the measures are statistically significant individually.

With the exception of having a female head of household, every control variable is a statistically significant predictor of the applied problem scale and typically remains so across all the models (see Table 4). The Black coefficient drops by more than half and the Hispanic coefficient by more than a third as parental and economic measures are included, although both remain associated with lower scores on this quantitative

TABLE 3. OLS Regression Model Predicting Letter Word Score ( $N = 1,473$ )

Independent Variables	Model I B (s.e)	Model II B (s.e)	Model III B (s.e)	Model IV B (s.e)	Beta
<i>Child Controls</i>					
1. Female	2.90 (1.2)*	3.29 (1.1)**	3.19 (1.1)**	3.26 (1.1)**	0.09**
2. Black	-11.23 (1.5)***	-3.34 (2.1)	-2.79 (2.1)	22.41 (2.3)	-.05
3. Hispanic	-6.69 (4.5)	-1.16 (3.2)	-1.14 (3.0)	-.57 (3.2)	-.01
4. Number of children	-2.04 (.6)***	-2.34 (.5)***	-2.18 (.5)***	-2.14 (.5)***	-.13***
5. Age of child	1.19 (.2)***	1.21 (.2)***	1.13 (.2)***	1.11 (.2)***	0.23***
<i>Parental Controls</i>					
6. Female-headed household		-2.01 (1.8)	0.13 (1.9)	0.34 (1.8)	0.01
7. Education of head		1.58 (.3)***	0.98 (.3)**	0.86 (.3)**	0.13**
8. Parental skills test		0.77 (.1)***	0.70 (.1)***	0.69 (.2)***	0.19***
<i>Income</i>					
9. Permanent income			0.81 (.2)***	0.71 (.2)***	0.15***
<i>Wealth</i>					
10. Net worth				0.10 (.2)	0.02
11. Cash accounts (Dummy)				0.64 (1.7)	0.02
12. Debt/credit cards (Dummy)				-1.06 (1.3)	-0.03
13. Stocks/IRA (Dummy)				1.73 (1.7)	0.05
R <sup>2</sup>	0.12	0.21	0.23	0.23	
R <sup>2</sup> change	-	0.09	0.02	0.00	
F-value	20.73***	30.72***	36.21***	25.51***	

Note: Models I-IV contain unstandardized coefficients; analysis weighted by 1987 child level weight.

\*p < .05, \*\*p < .01, \*\*\*p < .001.

TABLE 4. OLS Regression Model Predicting Applied Problem ( $N = 1,466$ )

Independent Variables	Model I B (s.e)	Model II B (s.e)	Model III B (s.e)	Model IV B (s.e)	Beta
<i>Child Controls</i>					
1. Female	-3.36 (1.1)**	3.04 (1.1)**	-3.11 (1.0)**	-2.97 (1.0)**	-0.09**
2. Black	-13.05 (1.2)***	-7.68 (1.3)***	-7.27 (1.3)***	-6.25 (1.4)***	-0.13***
3. Hispanic	-15.47 (2.3)***	-10.92 (2.0)***	-10.90 (2.1)***	-10.29 (2.3)***	-0.21***
4. Number of children	-1.01 (.6)	-1.20 (.5)*	-1.08 (.5)*	-.95 (.6)	-0.06
5. Age of child	0.87 (.2)***	.89 (.2)***	0.84 (.2)***	0.78 (.2)***	0.17***
<i>Parental Controls</i>					
6. Female-headed household		0.51 (1.3)	2.09 (1.4)	2.72 (1.4)	0.07
7. Education of head		1.52 (.3)***	1.08 (.3)***	0.91 (.3)**	0.15**
8. Parental skills test		0.60 (.1)***	0.54 (.1)***	0.52 (.1)***	0.15***
<i>Income</i>					
9. Permanent income			0.60 (.2)***	0.34 (.2)	0.08
<i>Wealth</i>					
10. Net worth				0.45 (.2)**	0.11**
11. Cash accounts (Dummy)				2.67 (1.4)	0.07
12. Debt/credit cards (Dummy)				-2.99 (1.0)**	-0.09**
13. Stocks/IRA (Dummy)				1.01 (1.3)	0.03
R <sup>2</sup>	0.13	0.21	.22	0.24	
R <sup>2</sup> change	—	0.08	.01	0.02	
F-value	32.77***	37.63***	34.99***	27.60***	

Note: Models I-IV contain unstandardized coefficients; analysis weighted by 1997 child level weight.  
 \*p < .05, \*\*p < .01, \*\*\*p < .001.

measure. Interestingly, household income does not remain consistently relevant. Once the block of wealth measures are added, the influence of income is no longer significant. In addition, two individual wealth measures seem important. A \$10,000 increase in net worth is associated with a half-point increase on this achievement test, while children in households having debt and credit cards score three points lower.

*Behavior Problem Index findings.* For this behavior indicator, none of the child-level controls seem to be very relevant except for gender—caregivers report more behavior problems for boys than girls (see Table 5). Unlike for academic achievement outcomes, having a female head of household and whether that head is employed seem to matter in the model for behavioral outcomes. Both household income and household wealth are significant predictors of behavior problems. Interestingly, parental education drops from significance once household economic variables are added to the model. In addition, Blacks and Hispanics seem to be less likely to have reported behavior problems after Model II when parental controls and household economic situation are taken into account. A \$10,000 increase in both net worth and income is associated with about a fifth of a point lower report of behavior problems.

*Race and wealth interactions.* For the applied problem score variable, there is a significant Black and net worth interaction. There is not a significant Hispanic and net worth interaction, so a separate analysis is conducted only for Blacks and Whites. The results can be found in Table 6. Although the control variables predict similar relationships across the two groups, there is a gender difference. Black females tend to score better on the applied problem score test, while being female seems to lead to lower scores for Whites. When considering income and wealth variables, however, Blacks and Whites look quite different. The only significant economic predictor for Blacks is whether someone in the household owns stock or has an IRA account. For Whites, not only is this variable not significant, but income is the better predictor. In addition, having a cash account and unsecured debt are significant predictors of the applied problem score for Whites but not Blacks.

## DISCUSSION

Addressing the first research question, these results show that although not the most important explanatory factor, wealth can be relevant. Examining Beta scores across the three main result tables,



TABLE 5. OLS Regression Model Predicting Behavior Problem Index ( $N = 1,885$ )

Independent Variables	Model I B (s.e)	Model II B (s.e)	Model III B (s.e)	Model IV B (s.e)	Beta
<i>Child Controls</i>					
1. Female	-1.06 (.5)*	-1.12 (.5)*	-1.09 (.5)*	-1.07 (.5)*	-0.07*
2. Black	0.87 (.5)	-1.58 (.7)*	-1.85 (.7)*	-1.70 (.8)*	-0.08*
3. Hispanic	-1.70 (1.4)	-2.84 (1.3)*	-3.08 (1.2)*	-2.68 (1.3)*	-0.12*
4. Number of children	-0.11 (.2)	-0.25 (.2)	-.24 (.2)	-0.28 (.2)	-0.04
5. Age of child	0.09 (.1)	0.10 (.1)	0.12 (.1)	0.14 (.1)	0.07
<i>Parental Controls</i>					
6. Female-headed household		2.32 (.7)***	1.73 (.8)*	1.76 (.8)*	0.09*
7. Education of head		-0.29 (.1)*	-0.08 (.1)	-0.08 (.1)	-0.03
8. Employment status of head		-3.55 (1.2)**	-3.33 (1.2)**	-3.29 (1.1)**	-0.14**
<i>Income</i>					
9. Permanent income			-0.26 (.1)***	-0.19 (.1)*	-0.09*
<i>Wealth</i>					
10. Net worth				-0.18 (.1)*	-0.10*
11. Cash accounts (Dummy)				-0.03 (.8)	0.00
12. Debt/credit cards (Dummy)				1.48 (.5)**	0.09**
13. Stocks/IRA (Dummy)				0.43 (.7)	0.03
R <sup>2</sup>	0.01	0.06	0.07	0.08	
R <sup>2</sup> change	—	0.05	0.01	0.01	
F-value	2.37*	6.01***	7.10***	6.17***	

Note: Models I-IV contain unstandardized coefficients; analysis weighted by 1997 child level weight.

\*p < .05, \*\*p < .01, \*\*\*p < .001.

TABLE 6. OLS Regression Model Predicting Applied Problem Score (by Race)

Independent Variables	Model A Blacks	Model B Whites
	Coefficient (se)	Coefficient (se)
<i>Child Controls</i>		
Female	1.94 (1.2)	-3.02 (1.1)**
Number of children	-0.50 (.6)	-1.16 (.7)
Age of child	0.74 (.2)***	0.82 (.2)***
<i>Parental Controls</i>		
Female-headed household	-1.58 (1.6)	2.59 (2.0)
Education of head	1.08 (.4)**	0.91 (.3)**
Parental skills test	0.46 (.1)***	0.66 (.2)***
<i>Income</i>		
Permanent income	0.02 (.4)	0.40 (.2)*
<i>Wealth</i>		
Net worth	-0.03 (.3)	0.30 (.2)
Cash accounts (dummy)	-0.44 (1.5)	4.66 (1.8)**
Debt/credit cards (dummy)	0.16 (1.4)	-3.41 (1.1)**
Stocks/IRA (dummy)	6.80 (2.1)***	1.04 (1.4)
R <sup>2</sup>	0.10	0.18
N	628	821
F-value	6.45***	17.74***

Note: Unstandardized coefficients and standard errors are reported. The data is unweighted.  
 \*p < .05, \*\*p < .01, \*\*\*p < .001.

educational level of the household head and mother's cognitive ability are consistently important factors for academic achievement. In addition, factors such as unemployment and being a female-headed household influence behavior problems along with income and wealth.

Turning to the second research question that considers the issue of racial differences, disparities in the academic achievement domain by race disappear or are significantly reduced as wealth and the other SES variables are added to the model. Black children growing up in households that own stock or an IRA seem to do particularly well. Examining the behavior measure, there initially were no racial differences in behavior problems reported. After all the SES measures are added, however, Blacks and Hispanics actually become less likely to have such problems.

Several limitations of this study should be kept in mind in interpreting the results. Except for wealth and income data, all information is taken from the 1997 survey interview, which captures the family only at one point in time. With this cross-sectional data, it is not possible to examine patterns of child outcomes and family dynamics over time. Nevertheless, the study is able to exploit prior income and wealth data, so the temporal order for these key variables is correct. A second wave of the Child Development Supplement recently has been released, however, so one direction of future analyses will be to examine longitudinal outcomes as PSID follows the cohort.

Also, in large-scale national data sets, very wealthy families often are missed. Although the PSID has little missing data and does a good job of tracking wealth in low-income households, a data set that oversamples the wealthy such as the Survey of Consumer Finances might do a better job of capturing households at the high end of the wealth distribution. In addition, wealth data collected by the PSID in 1994 does not include data on social security and retirement assets, which might be relevant.

Although this study includes Hispanics and seems to demonstrate that controlling for SES in general and wealth in particular reduces disparities for this group in a similar way that they do for Blacks, a more thorough examination of these issues by race is necessary. The Hispanic sample is small and, from the wealth summaries in Table 1, seem a little more well off than would be otherwise expected. Given that the U.S. population is becoming more diverse, it would also help to have a better representation of Asians and other racial groups to examine the influence of wealth in these populations as well.

Despite these limitations, the results suggest that wealth is significantly associated with at least two of the three outcomes considered. The effect is not dramatic, but still significant in the face of multiple controls, including household composition, maternal cognitive ability, and other common indicators of SES. In fact, for the applied problem score achievement test and the Behavior Problem Index, the effect of income is reduced or even eliminated when wealth is considered. These findings suggest that, in studies of child well-being, including measures of wealth might contribute important information in addition to data on household income. Considering the two academic achievement measures, wealth seems to be a better predictor of the more quantitative applied problem score than the verbal letter-word score. This is similar to what others have found (Orr, 2003; Phillips et al., 1998).

### **IMPLICATIONS**

When considering ways to expand opportunities and improve outcomes for children growing up in low-SES households, many approaches are potentially viable. These range from regional development strategies to reduce the effects of race and class segregation, living wage campaigns to increase income from earnings, programs to boost parental training and employment, early intervention strategies that directly address child needs, and incentives to assist families in building wealth through asset accumulation. Any or all of these policy interventions are potentially valuable in that they attempt to provide real economic resources to low-SES households.

Even as certain SES indicators such as education and income levels improve for Blacks and perhaps Hispanics, continuing differences in wealth may contribute to the persistence of racial disparities in child outcomes. Whether the correlation is due primarily to wealth being distinct from income, doing a better job of capturing long-term SES, being a proxy for important attitudes and perspectives, or leading to distinct social environments, children of color appear to remain at a disadvantage when they grow up in households at wealth levels one-tenth that of their White counterparts. Although the case may be stronger for adult children, the influence of wealth appears to be relevant at younger ages as well. Given that it typically takes time and focus to build wealth, waiting until children are teenagers and preparing for post-secondary transitions to encourage parents to build assets may be too late.

Some policymakers have taken an interest in wealth disparities and already have begun to consider the possible benefit of creating asset-building initiatives among households with children. Examples are the Child Trust Fund policy recently passed in Great Britain and the Saving for Education, Entrepreneurship, and Downpayment (SEED) demonstration taking place in the United States.<sup>3</sup> Regardless of program specifics, much of the attention in such planned initiatives will be on those at the low end of income and wealth distributions because they often have been excluded from both public and private discussions about financial products and tax policies that encourage asset accumulation (Oliver & Shapiro, 1995/2006; Seidman, 2001; Sherraden, 1991). In the United States, such a focus would clearly include Blacks and Hispanics.

Outcome data from these asset-building initiatives focusing on children will not be available for several years. However, results from adults participating in asset-building programs such as Individual Development Accounts (IDAs) are instructive. Although all are low-income, IDA

participants often cite creating a better future for their children as a motivation to save. In addition, those that do save generally feel more optimistic and confident in their abilities to achieve other goals (Hogan, Solheim, Wolfgram, Nkosi, & Rodrigues, 2004; Sherraden et al., 2005). Being in a structured program gives participants hope for the future and helps them to focus on their financial goals, which leads to better savings strategies and more accumulated savings, which in turn seems to lead to a greater confidence and a sense of self-efficacy (Sherraden et al., 2005). The potential of offering asset-building accounts to children in low-SES families would be to offer hope early in life to young people with the intent of breaking intergenerational cycles of economic vulnerability.

Future research studies should strive to confirm the mechanisms that mediate the impact of wealth on child outcomes, particularly when incentives might differ in specific policy interventions. Although initial evidence suggests that household wealth can provide important predictive information that income and parental education alone might not, much work is still required to specify the relationship between wealth and child outcomes for policy purposes.

## NOTES

1. Results are very similar whether the cognitive ability measure is used or not. However, due to less missing data, a much higher sample size can be utilized for the behavior index using the employment measure.

2. Two alternative sets of net worth measures were considered for the full statistical analyses: the trichotomous measure with the log value of specific assets and the truncated continuous measure with dummy variables for specific assets. Results were practically identical except that the variance explained ( $R^2$ ) tended to be higher with the trichotomous measure. The continuous truncated measure was chosen because it utilizes a wider range of the net worth distribution and the results are easier to interpret.

3. Tony Blair's Labour government launched the Child Trust Fund in 2003. With this program, the parents of every baby born in Great Britain will receive a voucher for at least £250 (~\$450) to open an account on their child's behalf. The SEED initiative also began in 2003 and will evaluate over 1,000 children's savings accounts. To find out more about these and other asset-building initiatives, see the following websites: <http://seed.cfed.org> or <http://assetbuilding.org>.

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doi:10.1300/J134v11n02\_05