



Center for Social Development

GEORGE WARREN BROWN SCHOOL OF SOCIAL WORK

Assets and Liabilities, Race/Ethnicity, and Children's College Education

Subsequently published as: Zhan, M. & Sherraden, M. (in press). Assets and liabilities, race/ethnicity, and children's college education. *Children and Youth Services Review*.

Min Zhan

University of Illinois at Urbana-Champaign

Michael Sherraden

Center for Social Development

2010

CSD Working Papers

No. 10-08

Campus Box 1196 One Brookings Drive St. Louis, MO 63130-9906 • (314) 935.7433 • csd.wustl.edu



Washington University in St. Louis

Assets and Liabilities, Race/Ethnicity, and Children's College Education¹

This study examines the extent to which household assets and liabilities are related to disparities in children's college attendance and college graduation among White, Black, and Hispanic families. Results indicate that, after household assets are considered, a substantial portion of the Black-White gap in college attendance and college graduation disappears, and a small portion of the Hispanic-White gap in college graduation also disappears. Separate analyses of children from each racial/ethnic group further indicate that family income and financial assets are related to White children's college attendance and graduation, but nonfinancial assets and unsecured debt are associated with college attendance and graduation among Black and Hispanic children. Policy implications are considered.

Key words: *educational achievement, assets, liabilities, college completion, college enrollment, race/ethnicity, African-American, Hispanic*

Context and Research Questions

College education has become progressively more important for long-term economic success (College Board, 2007; Hertz, 2006; Kane, 2004; U.S. Census Bureau, 2009). Despite the growing number of Blacks and Hispanics who enroll in college, there are still marked racial disparities in college education (U.S. Census Bureau, 2009). For example, in 2007, among people 25 years old and over, about 32% non-Hispanic Whites had graduated from high school, 55% had at least some college education, and 29% had a Bachelor's degree or above. In comparison, 36% of Blacks were high school graduates, 46% had at least some type of postsecondary schooling, and 19% had a Bachelor's degree or above. Hispanics were at still greater disadvantage—their comparable numbers were 28%, 32%, and 13%, respectively. Thus, these educational attainment rates document that the racial/ethnic gap in college graduation exceeds the high school graduation gap. In fact, 29% of Whites had completed a Bachelor's degree, in comparison to 19% of Blacks, and 13% of Hispanics.

This disparity in college completion among those from different racial/ethnic backgrounds has important individual consequences (e.g., economic success, health) and societal consequences (e.g., racial inequality, skills of the workforce). For this reason, many studies have examined mechanisms that may explain racial differences in children's educational achievement. In addition to parental education, occupations, and family income, household assets are receiving increasing attention (e.g., Kane, 1994; Orr, 2003; Yeung & Conley, 2008).

¹ This publication is part of the College Savings Initiative, a research and policy design collaboration between the Center for Social Development at Washington University in St. Louis and the New America Foundation in Washington, DC. The College Savings Initiative is supported by the Lumina Foundation for Education and the Bill & Melinda Gates Foundation.

There are wide racial disparities in asset holding. According to the Survey of Income and Program Participation, in 2000 the average net worth of Black households (\$40,900) was about two-thirds of the average net worth of Hispanic households (\$59,200), and less than one-fifth of the average net worth of White households (\$225,200). In the same year, although Hispanic households comprised more than 9% of all households, and Black households comprised more than 12%, their combined wealth represented only 3% of total household wealth (Leigh, 2006).

Data from the Survey of Consumer Finances also reveal large racial/ethnic gaps in median household assets. In 2007, the median Hispanic and Black household had a net worth of \$21,000 and \$17,100 respectively, compared to \$170,400 for White households (Federal Reserve Board, 2009). Thus, Hispanics and Blacks hold median net worth that is, respectively, 12% and 10% that of whites. Gaps are evident for all types of assets, and in both asset ownership and asset values. Given these striking racial/ethnic gaps in assets, along with emerging theories and empirical evidence that show the importance of household assets in children's education (e.g., Conley, 2001; Oliver & Shapiro, 2006; Sherraden, 1991; Zhan & Sherraden, 2003), examining racial/ethnic disparities in college education in relation to assets is probably worthwhile.

In this study, we aim to examine the associations between assets and children's college education from White, Black, and Hispanic families. Specifically, we investigate the following two research questions. First, are household assets (financial and nonfinancial assets) and liabilities (secured and unsecured debt) associated with disparities in college attendance and college graduation among White, Black, and Hispanic children? Second, do assets and liabilities have differential links to college education for children from White, Black, and Hispanic families?

This research contributes to research knowledge in several ways. Existing studies in this area have examined associations between household assets and the Black-White gaps in test scores (e.g., Orr, 2003; Philips, Brooks-Gunn, Duncan, Klebanov, & Crane, 1998; Williams, 2004; Yeung & Conley, 2008), but few studies examine college education. In particular, no prior studies examine how Hispanic-White disparities in children's education are associated with household assets. Addressing this issue is fundamental because Hispanics have emerged as the largest minority in the United States (U.S. Census Bureau, 2007), and among all racial/ethnic groups, Hispanic children on average have the lowest educational attainment (Fry, 2002; Grogger & Trejo, 2002; Schneider, Martinez, & Owens, 2006).

Second, we extend previous analyses by asking how two types of assets (financial vs. nonfinancial assets) as well as two types of liabilities (secured vs. unsecured debt) correlate to racial disparities in children's college education. Different types of assets and liabilities may have distinct relationships with children's education (Gruber, 2001; Nam & Huang, 2008; Sherraden, 2001; Yeung & Conley, 2008). Thus, it is worthwhile to investigate differential links of various forms of assets and liabilities to racial/ethnic gaps in college education.

Third, we investigate whether associations of assets and liabilities with children's education vary among different racial/ethnic groups. Such variations could be due in part to different patterns of asset and liability holdings, and/or different returns to assets among various racial/ethnic families (Carasso & McKernan, 2008; Keister, 2000). Differential relationships of assets and liabilities with children's education could also result from different life circumstances of these families.

Previous Scholarship

Theory

Household assets may influence children's educational attainment by enabling short-term and long-term investments in children's college education. Household assets may also affect children's education via influence on child development and the learning environment (Aronson, 2000; Shapiro & Johnson, 2005), and/or via parenting expectations and practices, as well as the children's own educational aspirations and expectations (Elliott, 2008; Yeung & Hofferth, 1998; Zhan, 2006).

Household assets from various sources and in various functional forms may affect children's education in different ways (Sherraden, 1991; Yeung & Conley, 2008). Financial assets, which are more easily converted to cash, are likely to be important financial resources for children's education (Nam & Huang, 2008; Yeung & Conley, 2008). Nonfinancial assets, on the other hand, may facilitate borrowing by providing collateral to lenders (Cha, Weagley, and Reynolds, 2005; Nam & Huang, 2008), and may signal a better developmental environment for children, e.g., the quality of homes, neighborhoods, and schools. Because of the limited assets in most minority families, resources and opportunities for children's education are also limited (Oliver & Shapiro, 2006; Shapiro, 2004). For example, Shapiro (2004) indicates that Black children are less likely to have "transformative opportunities" in education, particularly through enrollment in better-quality schools, because their parents hold fewer assets.

Liabilities, including both secured and unsecured debt, may have more complicated relationships with children's education. The impact of secured debt, which is linked to certain types of asset purchases (such as a home or a vehicle), is dependent on the value of an asset (e.g., house value) in relation to its associated debt (in this case, a mortgage) and dependent on whether families have the economic resources to meet the required debt service payments (Carasso & McKernan, 2008). Unsecured debt is important in smoothing consumption and providing resources for children's education during economic difficulties (Mayer & Jencks, 1989; Sullivan, 2005). However, families with debt, especially large debt, could be constrained in their ability to obtain a loan in the future (Gruber, 2001; Nam & Huang, 2009). Since the debt-to-assets ratio among Black and Hispanic families is higher than that of White families (Garcia, 2008; Wheary & Draut, 2007), debt may affect children's college education more negatively among minority families.

In addition to the importance of assets and liabilities in explaining children's educational opportunities and outcomes, some portion of the educational achievement gap may be attributed to

differences in returns of household assets to children's education. In other words, children from minority families may benefit differently from household assets and liabilities compared to White children. This could be due in part to different compositions of assets and their associated returns among various racial/ethnic groups (Brown, 2007; Carasso & McKernan, 2008; Choudhury, 2002; Keister, 2000; Martin, 2009). Whites are more likely to own risky but higher-return assets (such as equities) compared to Blacks and Hispanics. Residential segregation and discrimination in the housing and lending markets may result in lower returns on housing assets among minority families (Olive & Shapiro, 2006). Finally, the impact of assets on economic well-being could be different among families with various life and cultural circumstances (Edin, 2001; Zhan, 2006), and this may affect the relationship between assets and children's college education.

Assets and Racial/Ethnic Gaps in Education

Existing studies on race/ethnicity and educational gaps have focused on associations between household assets and Black-White gaps in test scores. Findings are not entirely consistent. A study by Phillips et al. (1998), using child data from the National Longitudinal Survey of Youth (NLSY79), finds that categories in net worth are not related to Black-White differences in performance on the Peabody Picture Vocabulary Test (revised) among five and six year olds. Similarly, Yeung and Conley (2008) and Williams Shanks (2007), in analysis of children aged 3 to 12 from the Panel Study of Income Dynamics, find little evidence that wealth mediates the Black-White test score gap. Initial relationships are eliminated after controlling for family and child characteristics.

Other studies, however, report that household assets are a significant predictor of White-Black educational gaps. Orr (2003) analyzes household wealth and children's (aged 5-14) PIAT math scores in 1996 from NLSY, and finds that income-producing assets such as CDs, stocks, bonds, and savings accounts explain a portion of the differences in the Black-White disparity in math scores. This study further suggests that the effect of assets on children's math scores operates in part through the level of cultural capital to which a child was exposed (measured by reports of whether a child was taken to museums or theaters, had a musical instrument at home, or received special lessons).

Conley (1999) analyzes PSID data to measure teenage and young adult outcomes of children born since 1962. He finds Black-White differences in educational attainment (including high school graduation, college graduation, and repeating a grade), labor force participation, wages, welfare receipt, and teenage premarital childbearing. But all of the initial racial/ethnic differences are dramatically reduced, no longer statistically significant, or reverse direction after household assets are taken into account.

Two recent studies include Hispanic children. Kaushal and Nepomnyaschy (2009) find that Black-White and Hispanic-White differences in children's participation in gifted programs, extracurricular activities, and grade retention operate largely through the influence of family assets (homeownership, net worth, and bank account ownership). Jez (2008) reports that disparities in

four-year college attendance between White and minority children (Black, Hispanic, and Asian) are statistically non-significant after net worth is controlled.

In the present study, we add to this growing body of research by examining how different types of assets and liabilities are associated with gaps in college education, especially college completion, among White, Black, and Hispanic children, and how links between assets and liabilities and college education may be different among different racial/ethnic groups. The major new contribution of this paper is its inclusion of analyses of assets and liabilities, race/ethnicity, and *college degree completion*.

Data and Methods

Data

Data for this study are drawn from the National Longitudinal Survey of Youth (NLSY79) main file and the NLSY child/young adult data sets. In 1979, 12,686 individuals between 14 and 22 years of age, including an oversample of minority and economically disadvantaged white youth, comprised the original NLSY. From 1979 through 1994, respondents were interviewed annually, and interviewed biennially thereafter (Center for Human Resources Research, 2006). Starting in 1986, children of the NLSY79 female respondents have been interviewed biennially. Interviews included a variety of measures of cognitive, motor, and social development, along with the quality of the home environment, schooling, and family related attitudes, including parent-child relationships. Beginning in 1994, the adolescents between 15 and 20 years of age (referred to by the NLSY as “young adults”) have been assessed with a different type of survey from younger children; this survey includes questions related to labor market experience, education, physical and mental health, relationships, and fertility.

This data set is selected because it includes measures of both household assets and liabilities, as well as children's educational data. Furthermore, the NLSY oversamples Black and Hispanic respondents, and thus it contains enough cases of these families for this analysis. Other national data sets, such as the Panel Study of Income and Dynamics (PSID), do not have large enough subsamples of racial and ethnic groups, except for White and African Americans.

Sample

The study sample includes children who were 11 to 17 years old in 1994. Therefore, they were at least 23 years old in 2006, which is normally the youngest age when a Bachelor's degree can be obtained. Data related to household assets, liabilities, and other parent characteristics are from mother/child/young adult data of survey year 1994, and information on children's college attendance and college graduation is from young adult data from survey year 2006, when these children were 23 to 29 years old. In this way, temporal order between assets and liabilities and later college education is established. White, Black, and Hispanic children are selected while Asians and other racial/ethnic groups were excluded from the sample due to the small sample size of these

groups. After excluding those who have a missing value for any of the variables in the analysis, the final sample includes 1,162 children.

Measures

Household assets and liabilities. The major independent variables, household assets and liabilities, are measured as dollar amounts of financial assets, nonfinancial assets, secured debt, and unsecured debt in 1994. Financial assets are calculated as the value in savings accounts, CDs, IRAs or Keoghs, and tax-deferred plans, plus the market value of stocks, bonds, and mutual funds. Nonfinancial assets include vehicle equity, equity in residential, and nonresidential property, businesses, and farms. We measure secured debt as the total amount of debt linked to an asset such as a home, a business, farm, or vehicle, and we define unsecured debt as how much respondents owe without collateral to financial institutions, stores, hospitals, family members, or any other business or person. Because the distribution of these variables is quite skewed, the natural log of these measures is used in regression models (assets and liabilities values of zero were recoded as one, so that the natural log can be ascertained).

Children's college education. There are two dependent variables in the analysis. The first is college attendance, i.e., whether or not a child has completed at least some college education, defined as 13 or more years of schooling. The second measure is college graduation, i.e., whether or not a child has obtained a Bachelor's degree, defined as 16 or more years of schooling. Both of these variables are dummy-coded (yes=1, no=0).

Race/ethnicity. This variable is dummy coded among Whites, Blacks, and Hispanics, with Whites as the reference group in the regression analyses.

Control variables. Because of their potential influence on the outcome of interest, several demographic, social, and economic characteristics of parents and children are included in the analysis as control variables. The inclusion of these variables reduces omitted variable bias.

These variables include demographic characteristics of parents in 1994: mother's age, marital status, educational status, employment status, number of children in households, and total family income.

Marital status is dummy coded into two groups: those who were married are coded as 1, and those who were not married are coded as 0. Employment status is also dummy coded, with employed coded as 1, and not employed coded as 0.

Mother's education in 1998 is coded as a nominal variable with four categories: less than high school degree (<12 years of education), high school degree (12 years of education), some college education (>12 years of education but < 16 years of education), and Bachelor's or above education (≥ 16 years of education). This variable is dummy coded in multiple regressions, with less than a high school degree as the reference group.

Total family income is a continuous variable summing all sources of income from household members. To adjust for short-term fluctuations in income that may be due to shocks such as unemployment or windfall, total family income is measured as an average over the past five years (1990-1994). Because the distribution of this variable is skewed, the natural log is used in regression models.

Controls of children's characteristics include his/her gender (female=1, male=0) and years of age.

Analysis

Two sets of analyses are conducted. First, in order to examine how much racial disparity in college education is related to differences in assets and liabilities, a series of regressions are estimated with different groups of predictors in the models. The first model includes only race/ethnicity. Control variables, including family income, are then added. Finally, assets and liabilities are entered into the model.

Second, in order to investigate whether associations between assets and liabilities and children's college education differ among White, Black, and Hispanic children, separate regression analyses are conducted with the sub-samples of each of these three groups.

For all these above analyses, assets and liabilities are first analyzed separately to estimate their relative links to children's education. Then they are both included in the model to assess how they together affect college education. The two outcome variables, college attendance and college graduation, are analyzed in separate models.

Results

Sample Characteristics

Table 1 details weighted descriptive statistics (by the child weights) of the study sample, as well as those by race/ethnicity. Consistent with prior research, results indicate vast racial disparities in household economic resources. The mean family incomes of Hispanic families (\$31,658) and Black families (\$25,883) are much lower than the mean income of White families (\$51,436).

Racial gaps in assets accumulation are much wider. The average value of financial assets of White families (\$17,871) is almost five times that of Hispanic families (\$3,653) and Black families (\$3,726). The average value of nonfinancial assets of White families (\$44,399) is almost four times that of Black families (\$12,376) and almost two times that of Hispanic families (\$21,373).

Disparities extend beyond asset dollar values. Minority households are much less likely to own assets at all. Only about half of minorities (43% of Black families and 53% of Hispanic families) have financial assets, compared to 80% of White families. About 95% of Whites have some type(s) of nonfinancial assets, compared to 84% among Hispanics and 63% among Blacks.

Racial gaps in liabilities are narrower than the gaps in assets. For both secured and unsecured debt, the average values held by minority families, especially Black families, are lower than the values held by White families.

Table 1. Variables by Race/Ethnicity (Weighted): Means and Percentages

Variables	All (n=1,162)	White (n=447)	Black (n=468)	Hispanic (n=247)
Parent Characteristics				
Mother's age	34	34	33	34
Number of children in household	2.6	2.5	2.8	2.7
Marital status				
Married	71%	82%	33%	62%
Education (Mother's)				
Did not complete high school	16%	14%	17%	31%
Completed high school or GED	55%	58%	45%	43%
Some college education	23%	21%	33%	16%
Completed 4-year degree or more	6%	7%	5%	9%
Mother's Employment Status				
Employed	70%	74%	61%	59%
Parental Economic Resources				
Family income (\$)	45,013	51,436	25,883	31,658
% own financial assets	71%	80%	43%	53%
Value of financial assets (\$)	14,034	17,871	3,652	3,726
% own nonfinancial assets	88%	95%	63%	84%
Value of nonfinancial assets (\$)	36,498	44,399	12,376	21,373
% owe secured debts	74%	83%	45%	59%
Value of secured debts (\$)	38,257	44,221	16,925	33,776
% owe unsecured debts	36%	40%	22%	27%
Value of unsecured debts (\$)	2,268	2,564	1,313	1,813
Child Characteristics				
Age (1994)	12.7	12.6	12.8	12.7
Age (2006)	24.4	24.3	24.5	24.5
Gender				
Female	50%	48%	56%	48%
Children's Education				
Less than High School	10%	7%	17%	23%
High School Graduate	41%	40%	47%	39%
Enrolled in college	29%	30%	25%	29%
College graduate	20%	23%	12%	9%

With respect to children's educational achievement, large gaps are evident among the three groups. Hispanic and Black children are more likely to drop out of high school (23% and 17%, respectively) than White children (7%). More than half of White children (53%) attended some type of college, more than Hispanic children (38%) or Black children (37%). Among them, about 23% of White children graduated from college, compared to 12% of Black children and 9% of Hispanic children.

Table 1 also shows differences in demographic and socioeconomic characteristics among White, Black, and Hispanic families. Lower percentages of Hispanic mothers (69%) and Black mothers (83%) are high school graduates or have received some higher education than White mothers (86%). Hispanic and Black mothers are also less likely to be employed (about 60%) than White mothers (74%). White mothers are slightly older, and have fewer children than Black or Hispanic mothers. About a third of Black mothers are married (33%), much less than the proportions of Hispanic mothers (62%) and White mothers (82%).

Assets, Liabilities, and Children's College Attendance and College Graduation

Tables 2 and 3 present results from logistic regressions on college attendance and college graduation. As mentioned, in order to understand how model specifications are different with and without assets and liabilities, these two constructs are entered last into the model.

College attendance. Results from Table 2 indicate that, before other variables are controlled, children from Black or Hispanic families are less likely to attend college than those from white families (Model 1). When demographic and socioeconomic variables, including family income, are added, the difference between Black and White children is reduced but still statistically significant. In addition, Hispanic children are no longer different from White children in the probability of attending college (Model 2). That is, when these family and parental characteristics are considered, racial gaps in college enrollment are either reduced or are no longer statistically significant.

In Model 2, family income and mother's education are positively related to college attendance, and children from married families are more likely to attend college. Female children are more likely to attend college than their male counterparts.

Results in Model 3 show that both financial assets and nonfinancial assets are positively associated with college attendance. Moreover, after these assets are included, differences in college attendance between White and Black children are no longer statistically significant. That is, the White-Black gap in college enrollment appears to operate in part through links with household assets and liabilities. When assets are included in the model, family income and marital status are no longer associated with college attendance.

Model 4 includes liabilities and control variables. Results indicate that secured debt is positively related, and unsecured debt is negatively related, to the probability of a child attending college. After liabilities are added to the model, the White-Black college enrollment gap is still statistically significant, but the effect size is reduced, suggesting that a portion of this gap may operate through liabilities.

Table 2. Logistic Regression
 Models for Children's College Attendance: Unstandardized Coefficients and Odds Ratios

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Race/ethnicity (White)					
African American	-0.79(0.45)***	-0.47(0.62)**	-0.19(0.83)	-0.39(0.68)*	-0.19(0.93)
Hispanic	-0.56(0.57)***	-0.24(0.79)	-0.06(0.94)	-0.19(0.82)	-0.07(0.93)
Mother's age		0.02	-0.001(0.99)	0.01(1.01)	-0.01(0.99)
Mother married		0.56(1.76)***	0.14(1.15)	0.42(1.52)**	0.14(1.15)
Number of children in household		-0.06(0.94)	-0.04(0.96)	-0.05(0.95)	-0.04(0.96)
Mother's education (Less than high school degree)					
High school graduates		0.89(2.43)***	0.74(2.09)***	0.83(2.3)***	0.74(2.10)***
Some college education		1.43(4.19)***	1.19(3.31)***	1.35(3.87)***	1.19(3.29)***
Bachelor's degree or above		2.39(11.0)***	2.19(8.97)***	2.34(10.4)***	2.22(9.18)***
Mother employed		0.17(1.18)	-0.08(0.93)	0.08(1.08)	-0.08(0.93)
Children's ages		0.04(1.04)	0.06(1.06)	0.05(1.05)	0.06(1.06)+
Female children		0.69(2.01)***	0.72(2.05)***	0.69(1.99)***	0.71(2.04)***
Log of household income		0.15(1.16)*	0.05(1.05)	0.11(1.11)+	0.04(1.04)
Log of financial assets			0.10(1.11)***		0.10(1.10)***
Log of nonfinancial assets			0.09(1.09)***		0.08(1.08)**
Log of secured debt				0.07(1.07)***	0.03(1.03)+
Log of unsecured debt				-0.03(0.97)*	-0.03(0.97)*
X^2	35.43	207.0	257.3	224.2	262.71
df	2	12	14	14	16
N	1,162	1,162	1,162	1,162	1,162

Note. --- Categories in parentheses are reference groups.

+ $p < 1.0$; * $p < .05$; ** $p < 0.01$; *** $p < 0.001$

In Model 5, when assets and liabilities are both included in the model, associations between financial and nonfinancial assets and unsecured debt with college attendance hardly changed. However, the association of secured debt with college attendance is largely reduced (about a 60% drop), indicating that the link between secured debt and college attendance may operate substantially through ownership of assets. This result is not surprising, because asset ownership and secured debt are typically correlated and together represent a higher level of financial functioning.

College graduation. Table 3 details results from the logistic regression analysis on college graduation. As expected, compared to children from White families, Black children and Hispanic children are less likely to graduate from college (Model 1). After the control variables are included, racial/ethnic differences in college graduation are still statistically significant, but the sizes of differences are reduced (Model 2). Family income and mother's education are positively and significantly related to college graduation. Female children are more likely to graduate from college than male children.

Financial and nonfinancial assets are positively and significantly related to college graduation (Model 3). After financial assets are included in the model, differences in college graduation between Black and White children disappear, but Hispanic children are still less likely to graduate from college compared to White children. Overall, it is apparent that racial/ethnic disparities in college graduation operate in part through their associations with assets.

Liabilities also are related to children's graduation. Children from families with larger amounts of secured debt are more likely, and children from families with larger amount of unsecured debt are less likely, to graduate from college (Model 4). However, after these two types of debt are included in the model, Black children and Hispanic children are still less likely to graduate from college.

Similar to the findings on college attendance, after asset variables are controlled, the associations between family income as well as secured debt with college graduation are no longer statistically significant.

Table 3. Logistic Regression
 Models for Children's College Graduation: Unstandardized Coefficients and Odds Ratios

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Race/ethnicity					
(White)					
African American	-0.92(0.40)***	-0.59(0.55)**	-0.25(0.78)	-0.54(0.58)*	-0.25(0.78)
Hispanic	-1.27(0.28)***	-1.11(0.33)***	-0.95(0.39)**	-1.11(0.33)***	-0.98(0.38)**
Mother's age		0.01 (1.01)	-0.03(0.97)	-0.004(0.99)	-0.04(0.97)
Mother married		0.27 (1.31)	-0.13(0.88)	0.19(1.21)	-0.15(0.86)
Number of children in household		0.08 (1.08)	0.12(1.12)	0.09(1.09)	0.11(1.11)
Mother's education					
(Less than high school degree)					
High school graduate		0.77(2.17)*	0.59(1.82)+	0.69(2.01)*	0.59(1.82)+
Some college education		1.37(3.95)***	1.12(3.07)**	1.26(3.53)**	1.10(3.00)*
Bachelor's degree or above		2.14(8.50)***	1.97(7.14)***	2.12(9.88)***	2.02(7.51)***
Mother employed		-0.12(0.89)	-0.29(0.75)	-0.13(0.88)	-0.25(0.78)
Children's ages		0.08(1.08)	0.11(1.11)*	0.08(1.08)	0.11(1.11)*
Female children		0.58(1.79)**	0.56(1.75)**	0.56(1.75)**	0.56(1.75)**
Log of household income		0.53(1.70)***	0.20(1.23)	0.41(1.51)**	0.19(1.21)
Log of financial assets			0.11(1.12)***		0.11(1.12)***
Log of nonfinancial assets			0.16(1.17)***		0.16(1.17)***
Log of secured debt				0.08(1.08)**	0.03(1.03)
Log of unsecured debt				-0.05(0.95)**	-0.05(0.95)**
X^2	38.00	135.9	178.0	148.2	185.1
df	2	12	14	14	16
N	1,162	1,162	1,162	1,162	1,162

Note. --- Categories in parentheses are reference groups.

+ $p < 1.0$; * $p < .05$; ** $p < 0.01$; *** $p < 0.001$

Associations of Economic Resources with College Education by Race/Ethnicity

In order to further examine whether associations of assets and liabilities with college education vary among different racial/ethnic backgrounds, these relationships are examined for White, Black, and Hispanic children separately. For each of the logistic regression analyses, income and other controls are first entered; then household assets and liabilities are added separately to the model. Due to space considerations, only the estimated coefficients for income, assets, and liabilities are presented (Tables 4 and 5).

Table 4. Logistic Regression Models for Parental Resources and Children's College Attendance by Race/Ethnicity: Unstandardized Coefficients and Odds Ratios

	White (N=447)	Black (N=468)	Hispanic (N=247)
Income	0.54(1.71)***	-0.09(0.91)	0.33 (1.33) ⁺
Income and Assets			
Family income	0.20 (1.23)	-0.11(0.89)	0.20(1.21)
Financial assets	0.16(1.16)***	0.01(1.01)	0.10(1.10) ⁺
Nonfinancial assets	0.04(1.04)	0.10(1.10)**	0.13(1.14)*
Income and Debt			
Family income	0.48(1.63)**	0.01(1.01)	0.22(1.25)
Secured debt	0.04(1.04)	0.07(1.07)*	0.11(1.12)**
Unsecured debt	-0.04(0.96)	-0.01(0.99)	-0.02(0.99)

Note: Control variables are included in these analyses.

⁺ $p < 1.0$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 5. Logistic Regression Models for Parental Resources and Children's College Graduation by Race/Ethnicity: Unstandardized Coefficients and Odds Ratios

	White (N=447)	Black (N=468)	Hispanic (N=247)
Income Only	0.94(2.56)***	0.04(1.04)	1.13 (3.08)*
Income and Assets			
Family income	0.65 (1.92)**	0.06 (1.06)	0.36 (1.44)
Financial assets	0.09 (1.10)*	0.08 (1.08)	0.19 (1.21)
Nonfinancial assets	0.06 (1.06)	0.24 (1.28)***	0.15 (1.16)
Income and Debts			
Family income	0.99(2.71)***	0.03 (1.03)	0.86 (2.36)
Secured debts	-0.03 (0.98)	0.21(1.23)***	0.09 (1.09)
Unsecured debts	-0.007 (0.99)	-0.07 (0.93) ⁺ ($p=0.06$)	-0.21 (0.81)*

Note: Control variables are included in these analyses.

⁺ $p < 1.0$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Results indicate that income has stronger associations with college education for White children. First, family income is related to both college attendance and college graduation before assets or liabilities are entered. Second, after liabilities are considered, income is still related to the two indicators of college education. Third, after assets are entered, the association between income and college graduation (but not college attendance) is still significant.

In comparison, among Hispanic children, family income is related to college attendance and college graduation only before household assets and liabilities are added to the model. For Black children, family income is not linked to children's college education in any of the models.

Results also indicate that financial assets also matter more for White children. Financial assets are related to their college attendance and to their graduation. However, financial assets are related only to college attendance for Hispanic children and are not associated with Black children's college attendance or graduation.

Nonfinancial assets matter more for minority children's college education. Nonfinancial assets are positively related to college attendance for both Black and Hispanic children, and are also related to college graduation for Black children. In contrast, non-financial assets are not related to college education of White children.

Secured debt follows the same pattern of associations with the outcome variables, perhaps because the effects of secured debt on college education operate through nonfinancial assets (see Tables 2 and 3). Unsecured debt is negatively related to college graduation of Black and Hispanic children, but is not significantly associated with White children's attendance or graduation.

Discussion and Implications

This study examines the extent to which disparities in assets and liabilities by race/ethnicity are related to gaps in children's college enrollment and college graduation. Findings indicate large disparities in household assets and liabilities between White vs. Black and White vs. Hispanic households. Correspondingly, White children are more likely to enroll in college, and more likely to graduate from college, compared to Black and Hispanic children.

Analyses document that differences in economic resources are associated with a substantial portion of the Black-White gaps in college attendance and graduation. After income and other parental and child characteristics are controlled, Black-White gaps in college education are reduced but still statistically significant. However, after assets are added to the model, the educational achievements of Black children are not statistically different from those of White children.

Links of household assets to White-Hispanic gaps in children's college education are somewhat weaker. Household assets are not related to White-Hispanic differences in college attendance. After assets are included in the model, the White-Hispanic gap in college graduation is reduced by about 14% but is still statistically significant. This result could be related to the smaller size of assets disparities between White and Hispanic households compared to those between White and Black households. Another possible explanation is that unobserved family characteristics in this study, such as immigrant status, languages skills, family responsibilities, and college selections, may matter more for the college education of Hispanic children (Fry, 2004).

Separate analyses of subsamples for each race/ethnicity group reveal different associations of household economic resources with children's college attendance and graduation. Controlling for other factors, household income has stronger relationships with White children's education. Household income is not related to Black children's college education, and it is not related to the college education of Hispanic children after assets are considered. These results are consistent with findings of Williams Shanks (2007), who reports that income is related to test scores for White children, but not for Black children. One possible reason could be that minority families have much lower income, and therefore other factors may overshadow income as educational resources for children. For example, studies find that minority households are less likely to have health or life insurance, and since health care must be met from income, opportunities for investments of all kinds, including investment in education, may be reduced (Campbell & Kaufman, 2006).

The links of financial assets to education follow a pattern similar to that of income, i.e., they are much stronger for White children. This result may point to the importance of liquidity for the education of White children, perhaps because liquid assets are more readily available to meet educational expenses and thus can reduce dropping out or working too much for financial reasons (Nam & Huang, 2009; Yeung & Conley, 2008). Financial assets are not related to the college education of minority children.

In contrast and interestingly, nonfinancial assets matter more for Black children. This finding could be due primarily to the fact that smaller portions of minority families own financial assets in the study sample, and the values of their financial assets are low. Under these circumstances, nonfinancial assets may play a more important role for minority children, simply because they represent a larger share of the assets among these families (Oliver & Shapiro, 2008). Another part of the explanation could be that nonfinancial assets (especially home ownership) are associated with family stability that may in turn be associated with educational success.

Unsecured debt is negatively related to the college graduation of Hispanic and Black children, but not that of White children. Further analyses indicate that the unsecured debt-to-financial-assets ratio is much higher among Black families (36%) and Hispanic families (22%), compared to White families (14%). In other words, unsecured debt looms larger for minority families—they are less able to pay it off—which may help explain the negative relationship of unsecured debt and college graduation among minority children.

A few limitations of this study should be noted, and these, in turn, point to useful directions for future research. First, in addition to the variables included in the models, other factors, such as residential environments, cultural differences, and racial discrimination may be important in understanding these results. As one possibility, variation in these contextual conditions may affect returns on household assets among minority families, which in turn may contribute to racial/ethnic gaps in children's educational achievement. Future studies should attempt to add contextual factors to studies of resources and educational success. Second, it is well known that credit card debt

accounts for a large portion of unsecured debt, and this debt has increased in recent years, particularly among minority and low-income families (Bird, Hagstrom, & Wild, 1999; Garcia, 2008; Sullivan, 2005). However, the data set used in this study does not contain a separate question on credit card debt. Further analyses incorporating credit card debt could help to specify how unsecured debt is related to children's education, especially among minority children.

Overall, study findings point to the importance of building assets and reducing unsecured debt among minority families, for improving college success for their children.

Regarding types of assets, the most apparent finding is that nonfinancial assets play a positive role for college success of children from minority families. These results suggest that ownership of homes especially, and perhaps also ownership of other real estate and businesses, may create a platform that supports minority families and enables their children to succeed in college.

In addition, the data show that financial assets are unrelated to college success for minority families, but we speculate that minority families may not hold enough financial assets for this to be statistically related to college success. Although speculative, it would seem logical that financial assets would be a positive influence for minority families, just as for White families.

Overall, with the soaring cost of college education, it has become more daunting for families with few assets to pay for their children's education. The current study indicates that racial/ethnic gaps in asset holding are associated with later college attendance and graduation. Creating incentives for minority families to accumulate assets for college may be important.

In this regard, we are now undertaking the SEED for Oklahoma Kids experiment. In this demonstration, 1,360 newborns in Oklahoma have been randomly selected and given an account in the Oklahoma College Saving (529) Plan, with an initial \$1,000 deposit and modest matching savings provisions for the first four years. These children and 1,360 controls will be followed to see if financial assets in this form make a difference in child development and educational attainment. The experiment by design has oversamples of Black, Hispanic, and American Indian children, and thus we will be able to ask whether children in minority families are affected the same or differently than children in White families (Sherraden & Clancy, 2008).

The study findings also indicate that unsecured debt decreases the probability of children attending or graduating from college, particularly for Black and Hispanic children. The rising amount of these debts (such as credit card debt and student loans), coupled with higher debt-to-asset ratio among low- and middle-income minority families, poses challenges for building assets and financing higher education (Garcia, 2008; Wheary & Draut, 2007). For example, studies have found that Black and Hispanic college students are far more likely to have unmanageable debt, when defined as monthly payments over 8% of income, which contributes to their higher drop-out rates from college (King & Bannon, 2002; Garcia, 2006).

Minority families are particularly vulnerable to fringe financial services, such as nontransparent credit card practices and high-interest payday lenders (Center for Responsible Lending, 2008; Oliver & Shapiro, 2008). Strengthening regulation of these fringe financial practices and ensuring that low-income minority families have access to quality credit in mainstream financial institutions is essential to reduce household debt and build assets. As these research results indicate, unsecured debt is not simply a financial matter. If low-income minority households are burdened by unsecured debt, their children have reduced success in college. This is not an outcome that is in anyone's long-term interest. The implications for the nation are great, and solutions are within reach.

References

- Aaronson, D. (2000). A note on the benefits of homeownership. *Journal of Urban Economics*, 47 (3), 356-369.
- Bird, E. J., Hagstrom, P. A., & Wild, R. (1999). Credit card debts of the poor: High and rising. *Journal of Policy Analysis and Management*, 18(1), 125-133.
- Brown, A. A. (2007). Pensions and risk aversion: The influence of race, ethnicity, and class on investor behavior. *Lewis & Clark Review*, 11, 385-406.
- Carasso, A., & McKernan, S-M. (2008). Asset holding and liabilities. In M. Sherraden & S.-M. McKernan (Eds.), *Asset building and low-income households* (pp.33-66). Washington, DC: Urban Institute Press.
- Center for Human Resource Research (2006). *NLSY79 User's guide: A guide to the 1979-2004 National Longitudinal Survey of Youth data*. Columbus, OH: Ohio State University.
- Center for Responsible Lending (2008). *Wealth-stripping payday loans trouble community of color*. Washington, DC: Center for Responsible Lending.
- Cha, K.-W., Weagley, R. O., & Reynolds, L. (2005). Parental borrowing for dependent children's higher education. *Journal of Family and Economic Issues*, 26, 299-321.
- Clancy, M., & Parrish, L. (2006). *Reforming 529 College Savings Plan to better reach low-income families* (CSD Report 06-32). St. Louis, MO: Washington University, Center for Social Development.
- College Board (2008). *Trends in college pricing*. Retrieved September 28, 2009, from <http://www.collegeboard.com/html/costs/pricing/>
- College Board (2007). *Education pays: The benefits of higher education for individuals and society*. Retrieved September 28, 2009, from http://www.collegeboard.com/prod_downloads/about/news_info/trends/ed_pays_2007.pdf
- Compbell, L. A., & Kaufman, R. L. (2006). Racial differences in household wealth: Beyond black and white. *Research in Social Stratification and Mobility*, 24, 131-152.
- Conley, D. (2001). Capital for college: Parental assets and postsecondary schooling. *Sociology of Education*, 74 (January), 59-72.
- Conley, D. (1999). *Being Black, living in the red*. Berkeley and Los Angeles: University of California Press.
- Choudhury, S. (2001/2002). Racial and ethnic differences in wealth and asset choices. *Social Security Bulletin*, 64 (4).
- Destin, M. (2009). *Assets, inequality, and the transition to adulthood*. New York, NY: The ASPEN Institute.

- Dynarski, S. M. (2004). *Who benefits from the education savings incentives? Income, educational expectations, and the value of the 529 and Coverdell* (NBER Working Paper No. 10470). Cambridge, MA: National Bureau of Economic Research.
- Elliott, W. (2008). *At-risk children's college aspirations and expectations: The potential of college savings account* (CSD Working Paper No. 08-17). Washington, DC: Washington University, Center for Social Development.
- Fry, R. (2002). *Latino youth finishing college: The role of selective pathways*. Washington, DC: Pew Hispanic Center.
- Garcia, J. (2008). *In the red or in the black: Understanding the relationship between debt and assets*. New York: Demos.
- Garcia, J. (2006, December). *Debts, assets, mobility, and the racial wealth gap*. Presentation at How to close racial wealth gap: Perspectives of Experts of Color conference, Santa Barbara, CA.
- Green, R. K., & White, M. J. (1997). Measuring the benefits of homeownership: Effects on children. *Journal of Urban Economics*, 41 (3), 441-461.
- Grogger, J., & Trejo, S. J. (2002). *Falling behind or moving up? The intergenerational progress of Mexican Americans*. San Francisco: Public Policy Institute of California.
- Gruber, J. (2001). *The wealth of the unemployed*. *Industrial and Labor Relations Review* 55, 79-94.
- Hertz, T. (2006). *Understanding mobility in America*. Washington, DC: Center for American Progress.
- Jez, S. J. (2008). *The influence of wealth and race in four-year college attendance* (Research and Occasional Paper Series). Berkeley, CA: University of California, Center for Studies in Higher Education.
- Kane, T. J. (2004). College-going and inequality. In K. M. Neckerman (Ed.), *Social Inequality* (pp. 319-354). New York: Russell Sage.
- 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 (5), 878-907.
- Kaushal, N., & Nepomnyaschy, L. (2009). Wealth, race/ethnicity, and children's educational outcomes. *Children and Youth Services Review*, 31(9), 963-971.
- Keister, L. A. (2000). Race and wealth inequality: The impact of racial differences in asset ownership on the distribution of household wealth. *Social Science Research*, 29, 477-502.
- King, T., & Bannon, E. (2002). *The burden of borrowing: A report on the rising rates of student loan debt*. Washington, DC: State's PIRG's Higher Education Project.

- Leigh, W. A. (2006). Wealth measurement: Issues of people of color in the United States. In J. G. Nembhard & N. Chiteji (Eds.), *Wealth accumulation & communities of color in the United States* (pp. 67-87). Ann Arbor, MI: University of Michigan Press.
- Lui, M., Clay, R., Warren, L., Blain, L., Corral, V., & Polk, E. (2009). *Laying the foundation for national prosperity: The imperative of closing racial wealth gap*. Oakland, CA: Insight Center for Community Economic Development.
- Martin, L. L. (2009). Black asset ownership: Does ethnicity matter? *Social Science Research*, 38, 312-323.
- Mayer, S., & Jencks, C. (1989). Poverty and the distribution of hardship. *Journal of Human Resources*, 24(1), 88-114.
- McPherson, M. S., & Schapiro, M. O. (1998). *The student aid game: Meeting need and rewarding talent in American higher education*. Princeton, NJ: Princeton University Press.
- Morgan, S. L., & Kim, Y. (2006). Inequality of conditions and intergenerational mobility: Changing patterns of educational attainment in the United States. In S. L. Morgan, D. B. Grusky, & G. S. Fields (Eds.), *Mobility and inequality* (pp. 165-194). Stanford, CA: Stanford University Press.
- Nam, Y., & Huang, J. (2009). Equal opportunity for all? Parental economic resources and children's educational achievement. *Children and Youth Services Review*, 31(6), 625-634.
- Oliver, M. L., & Shapiro, T. M. (2006). *Black wealth/White wealth: A new perspective on racial inequality*. New York: Routledge.
- Oliver, M. L., & Shapiro, T. M. (2008). *Sub-prime as a Black catastrophe*. The American Prospect, September 22.
- Orr, A. J. (2003). Black-white differences in achievement: The importance of wealth. *Sociology of Education*, 76 (October), 281-304.
- Phillips, M., Brooks-Gunn, J., Duncan, G. J., Klebanov, P., & Crane, J. (1998). Family background, parenting practices, and the black-white test score gap. In C. Jencks & M. Phillips (Eds.), *The black-white test score gap* (pp. 103-145). Washington, DC: Brookings Institution Press.
- Schneider, B., Martinez S., & Ownes, A. (2006). Barriers to educational opportunities for Hispanics in the United States. In M. Tienda & F. Mitchell (Eds.), *Hispanics and the future of America* (pp. 179-227). Washington, DC: National Academies Press.
- Shapiro, T. M. (2004). *The hidden cost of being African American*. New York: Oxford University Press.
- Shapiro, T. M., & Johnson, H. B. (2005). Family assets and school access: Race and class in the structuring of educational opportunities. In M. Sherraden (Ed.), *Inclusion in the American dream: Assets, poverty, and public policy* (pp. 112-127). New York: Oxford University Press.
- Sherraden, M. (1991). *Assets and the poor: A new American welfare policy*. Armonk, NY: M.E. Sharpe.

- Sherraden, M., & Clancy, M. (2008). *SEED for Oklahoma Kids: Demonstrating Child Development Accounts for all newborns*. St. Louis, MO: Washington University, Center for Social Development.
- Sherraden, M. S., Johnson, L., Elliott, W., Porterfield, S., & Rainford, W. (2007). The *I Can Save* program: School-based children's saving accounts for college. *Children and Youth Services Review, 29*, 294-312.
- Sullivan, J. X. (2005). *Borrowing during unemployment: Unsecured debts as a safety net*. Notre Dame, IN: University of Notre Dame.
- Wheary, J., & Draut, T. (2007). *Who pays? The winners and losers of credit card deregulation*. New York: Demos.
- Williams Shanks, T. R. (2007). The impacts of household wealth on child development. *Journal of Poverty, 11*(2), 93-116.
- Yeung, J., & Conley, D. (2008). Black - white achievement gap and family wealth. *Child Development, 79*(2), 303-324.
- Yeung, J. & Hofferth, S. (1998). Family adaptations to income and job loss in the U.S. *Journal of Family and Economic Issues, 19*, 255-283.
- Zhan, M. (2006). Assets, parental expectations and involvement, and children's educational performance. *Children and Youth Services Review, 28*(8), 961-975.
- Zhan, M., Sherraden, M. (2003). Assets, expectations, and children's educational achievement in female-headed households. *Social Service Review, 77* (2), 191-211.