

Young, Black, and (Still) in the Red: Parental Wealth, Race, and Student Loan Debt

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Abstract Taking out student loans to assist with the costs of postsecondary schooling in the US has become the norm in recent decades. The debt burden young adults acquire during the higher education process, however, is increasingly stratified with black young adults holding greater debt burden than whites. Using data from the NLSY 1997 cohort, we examine racial differences in student loan debt acquisition and parental net wealth as a predictor contributing to this growing divide. We have four main results. First, confirming prior research, black young adults have substantially more debt than their white counterparts. Second, we find that this difference is partially explained by differences in wealth, family background, postsecondary educational differences, and family contributions to college. Third, young adults' net worth explain a portion of the black–white disparity in debt, suggesting that both differences in accumulation of debt and ability to repay debt in young adulthood explain racial disparities in debt. Fourth, the black–white disparity in debt is greatest at the highest levels of parents' net worth. Our findings show that while social and economic experiences can help explain racial disparities in debt, the situation is more precarious for black youth, who are not protected by their parents' wealth. This suggests that the increasing costs of higher education and corresponding rise in student loan debt are creating a new form of stratification for recent cohorts of young adults, and that student loan debt may be a new

mechanism by which racial economic disparities are inherited across generations.

Keywords Parental wealth · Race · Student loans · Wealth · Young adulthood

Introduction

Postsecondary enrollment rates have steadily increased in recent decades. As of 2012, 41.0 % of young adults aged 18–24-year-olds enrolled in a 2 or 4 years institution, up from 34.4 % just 20 years earlier. At the same time, the costs of higher education have also risen. The average tuition at 4-year degree granting institutions was \$35,074 at private and \$17,474 at public institutions in 2013, an increase of 57 % at private institutions and 93 % at public institutions from 1990 (National Center for Education Statistics 2013). But while costs have skyrocketed, traditional sources of financial aid have not kept pace (College Board 2006). Without financial assistance, attending postsecondary institutions would be impossible for most students (Carneiro and Heckman 2002; Fitzpatrick and Turner 2007; Kane and Spizman 1994; Keane and Wolpin 2001), so to bridge the gap between rising costs and flagging aid, many students have turned to student loan debt to afford college. As a result, aggregate student loan debt in the USA has hit 1 trillion dollars and is second only to home mortgage debt on the household balance sheet (Federal Reserve Board 2010). Today, the average debtor leaves school with over \$25,000 in student loan debt (Project on Student Debt 2011), and the vast majority of outstanding student loan debt is owed by adults under the age of 40 (Federal Reserve Bank of New York 2013). The rise in debt is the combined effect of more young adults entering

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college, longer college completion times, state defunding of higher education, flagging federal aid, and increasing tuition costs (Bound et al. 2007; Fitzpatrick and Turner 2007). This is especially true for black students, who tend to rely more on loans than whites (Cunningham and Santiago 2008; Houle 2014; Jackson and Reynolds 2013); they are also more likely to default on these loans and less likely to leave school with a degree. Recent estimates suggest that black young adults pursuing a college degree are much more likely to borrow than white young adults (80 vs 65 %), and black debtors owe \$5,000 to \$10,000 more than white debtors, on average (Houle 2014; Huelsman 2015; Jackson and Reynolds 2013). In addition, 69 % of blacks who dropout cite student loan debt as a primary reason for not completing their degree, compared to 43 % of white students (Johnson et al. 2012). Blacks also report being significantly more concerned about being able to afford student loan payments than whites (Ratcliffe and McKernan 2013). Taken together, this suggests that student loan debt is an important stratifier by race among college-going youth in the USA, where black students take greater financial risks in pursuing a college degree than whites, and may reap fewer rewards (Jackson and Reynolds 2013).

In addition to loans, familial financial resources play a prominent role in the investment and financing of post-secondary education. Families can draw from their income streams, private assets, and can rely on tax credits (i.e., 529 savings accounts) to assist with paying for the costs of attendance. Indeed, a large body of the literature shows that family's socioeconomic resources are positively associated with college contributions (Cha et al. 2005; Charles et al. 2007; Choy and Berker 2003; Hossler and Vesper 1993; Mauldin et al. 2001; Steelman and Powell 1991). Given these relationships, surprisingly little is known about how family resources contribute to the student loan debt experience and whether these associations differ by race. Studies examining students' ability to pay for college tend to focus on its impact on college attendance, persistence, and completion. In addition, most studies that examine family background characteristics use income as the sole measure of socioeconomic status.

The purpose of this study is to elucidate the links between parental wealth and student loan debt with a focus on differences and disparities across races. We ask three key research questions. First, is parents' wealth protective of student loan debt among a recent cohort of young adults? Recent research shows that parents' income and education are predictive of student loan debt (Houle 2014) but less work has examined the link between wealth and student loan debt. Second, to what extent do racial differences in family socioeconomic background (including wealth), postsecondary experiences, and young adult social and economic outcomes explain racial disparities in student

loan debt in young adulthood? And third, is parental wealth equally protective of student loan debt for black and white youth? Prior research on race and wealth in the USA suggests that wealth may not confer similar benefits across race (Shapiro 2004). Therefore, the ability to translate wealth into intergenerational economic security may not be race neutral.

Background

Parental Resources and Student Loan Debt

In the USA, there is a strong positive gradient between socioeconomic status, college attendance, and the odds of completion (Charles et al. 2007). Students with fewer economic resources lack the parental financial investments that those with more resources have available to them (Clawson and Leiblum 2008; Oliver and Shapiro 2006). Moreover, once in college, parents can use their financial resources and knowledge to help their children navigate their postsecondary institution (Goldrick-Rab and Pfeffer 2009) providing young adults from higher socioeconomic families with advantages across their college career. Thus, it is perhaps not surprising that parents with greater financial and knowledge resources are able to contribute more money to their children's college expenses (Choy and Berker 2003; Charles et al. 2007; Grodsky and Jones 2007; Hossler and Vesper 1993; Schoeni and Ross 2005; Steelman and Powell 1991; Swartz 2008), and are also more likely to take on debt in lieu of their children (Cha et al. 2005).

As a result of these processes, children from more economically advantaged backgrounds tend to start young adulthood with less debt than their less advantaged counterparts. A recent study by Houle (2014) using NLSY-97 data shows that young adults with college educated parents and those from the highest income bracket leave school with considerably less debt than their counterparts. Moreover, Houle finds that the association between parents' income and debt is nonlinear, such that those from the middle income brackets (\$40,000–\$60,000) have the highest debt burdens, which may reflect financial aid policies that put high burdens of payment on middle income families, whose wages have stagnated in the past several decades (College Board 2010a).

A key shortcoming is that previous research on parents' resources, college contributions, and debt tends to focus on parents' education and household income, but has largely ignored parental wealth. Wealth, like income, is a measure of economic well-being. Wealth represents more than income and education. It can serve as a form of insurance that buffers against negative income and household shocks, providing a sense of security and protection against

downward mobility. Wealth also confers access to social status and political power, capital, selective educational institutions, better health, and health care. Wealth tends to be passed down intergenerationally, perpetuating wealth inequalities over time (Oliver and Shapiro 2006).

Previous research on parental wealth and child outcomes find that household assets positively predict test scores (Orr 2003), college attendance (Lovenheim 2011), persistence (Elliott and Friedline 2013), and completion (Conley 2001; Jackson and Reynolds 2013). There is also evidence that policymakers and the market recognize the importance of family wealth for helping to cover children's education. Parents are encouraged to think about saving for college as soon as the child is born. The introduction of financial products such as college savings accounts (CSAs) incentivizes parents to save for college in order to decrease the burden of financial aid and student loan debt. There is some evidence that these accounts are beneficial, but take-up remains low (Elliott and Beverly 2011). This suggests that parental wealth, like education and income, is protective of student loan debt among young adults.

Racial Inequalities, Wealth, and Student Debt

Little research has examined the role of wealth in the link between race and student loan debt. That black students borrow more than whites is a consistent finding (Cunningham and Santiago 2008; Houle 2014; Jackson and Reynolds 2013), but less is known about the mechanisms behind this association, though wealth may be implicated. Jackson and Reynolds (2013) find that the race difference in debt persists even after controlling for parental wealth, suggesting that wealth may play a role in racial disparities in student loan debt but other mechanisms may also be at play.

The ability of blacks to translate wealth into better educational and economic outcomes for their children, to our knowledge, has been relatively understudied, with only a few exceptions. For example, Shanks and Destin (2009) found parental wealth among blacks increased college enrollment, while Charles et al. (2007) found a black advantage in educational attainment when controlling for family background and socioeconomic characteristics. Finally, Conley (2001) was able to explain away the black–white college enrollment gap once parental wealth was taken into account.

In addition to wealth, racial differences in postsecondary and postcollege experiences may influence racial disparities in debt. For example, blacks are more likely than whites to attend postsecondary institutions that are associated with high debt—including underfunded institutions

(that have a high cost relative to aid provided) and for-profit institutions (Cellini and Goldin 2014; Rodriguez 2015; Ruch 2001). Racial differences in attained socioeconomic status may also be linked to racial disparities in debt in young adult's attained socioeconomic status. Previous research shows that black–white disparities in earnings, employment, and wealth are observable in young adulthood (Cancio et al. 1996; Zhang 2008), and due to their precarious economic position black youth may have more difficulty paying down student loan debt after leaving college. Indeed, a recent study by Gaddis (2015) shows that this black–white disparity in young adult socioeconomic attainment also exists among recent college graduates and in part reflects racial discrimination in employment in the early career. As such, racial disparities in debt likely reflect differences in parental wealth, postsecondary experiences, young adult social and economic outcomes, and (though we cannot measure it) discrimination.

Although we expect parents' net wealth to be negatively associated with student loan debt, it is not evident that wealth provides the same protective effects across races. So while the previous literature has focused on racial disparities in wealth as a mechanism for intergenerational inequality, fewer studies have considered whether wealth confers similar benefits for blacks and whites.

Debt and Wealth: Does the Association Vary by Race?

Racial wealth disparities in the USA are large and persistent. The context in which wealth generation (and loss) occurs in the US has relegated blacks to the bottom of the economic hierarchy (Oliver and Shapiro 2006). And, the intergenerational aspects of racial discrimination and social and legal environment that deprived blacks of wealth creation have meant fewer opportunities to acquire and retain wealth (Oliver and Shapiro 2006). For example, homeownership comprises the largest asset in most families' wealth portfolio, both white and black. In 2012, 68 % of whites were homeowners compared to 42 % blacks families. Black homeowners are also 86 % more likely to have mortgages with negative equity compared to white homeowners (15 %). Therefore, it is easier for white households to use their homes, a non-financial asset, as a source of financial assets (Tippett et al. 2014). It also indicates that whites may also possess wealth that is more "transferable" and accessible, such as liquid assets, across generations (Gittleman and Wolff 2004). Thus, in addition to possessing greater levels of wealth, if whites possess wealth that is more liquid, or more transferable across generations, than blacks, it is possible that wealth does not confer

equivalent benefits for blacks and whites in the college career. While we expect that parental wealth can be utilized to protect young adults from high college costs and student loan debt, if wealthy blacks hold wealth that is less transferrable (fungible) across generations, this suggests that wealth may be less protective of student loan debt for blacks than it is for whites.

The current study makes several contributions to understand the perpetuation of racial wealth inequality and its persistence among recent cohorts of young adults. First, we provide evidence from the NLSY97 of racial student loan debt disparities among a recent cohort of young adult. Second, we test several different mechanisms (mediators) that may explain our observed relationships, including racial differences in family background, postsecondary careers, and young adult social and economic status. Third, we examine whether the link between parents' wealth and young adult student loan debt varies by race.

Methods

Data and Sample

We draw data from the National Longitudinal Study of Youth 1997 (NLSY97) (Bureau of Labor Statistics 2009), a nationally representative sample of 8984 young men and women who were aged 12–16 years at the baseline interview. The NLSY97 oversamples racial and ethnic minorities and followed up all respondents annually between 1997 and 2011. We draw additional data from the Integrated Postsecondary Education Data System (IPEDS) Delta Cost Project Database (2012), which provides longitudinal information on characteristics of postsecondary institutions attended by NLSY97 respondents.

The analysis is limited to NLSY97 respondents eligible for the over-25 debts and assets module, which was administered to respondents once between 2005 and 2011 at the survey wave closest to their 25th birthday ($N = 8132$). We then limit all analyses to respondents who reported any postsecondary education and were therefore eligible to incur student loan debt ($N = 5246$). To account for missing data, we use multiple imputation using the ICE command for Stata 14.0 (Royston 2005). Multiple imputation is a more efficient and less biased strategy for missing data than listwise deletion (Lee and Carin 2010). The procedure iteratively replaces missing values on all variables with predictions based on random draws from the posterior distributions of parameters observed in the sample, creating multiple complete datasets (Allison 2001). We average results across ten imputation samples and account for random variation across samples to calculate standard

errors (Royston 2005). The multiple-imputed results presented here are similar to results using listwise deletion.

Measures

Student Loan Debt

Student loan debt was obtained from the over-25 debt and assets module. Respondents were asked about their total amount of outstanding student loan debt from all sources. We adjusted debt for inflation and standardized it to reflect 2010 dollars using the Consumer Price Index Research Series (CPI-U-RS) (Bureau of Labor Statistics 2010; Stewart and Reed 1999). Although accuracy of self-reported debt data is a serious concern, recent evidence suggests borrower self-reports and official lender (credit) reports are extremely similar for nearly all forms of debt, including student loan debt (Brown et al. 2011).

Parents' Wealth

Parents' wealth is a measure of parent-reported 1997 household net worth. Parents were asked the monetary value of all assets (including home value, checking and savings, stocks and bonds, automobiles, college savings accounts) less all debts. Parents' wealth is reported in constant 2010 dollars. Following Killewald (2013), we use a continuous rather than logged transformation of wealth to preserve the full variation in positive and negative net worth. Because log transformations require nonzero and positive values, researchers have traditionally assigned respondents with zero or negative net worth as having a small positive net worth, thus assuming that these groups are equivalent.

Race and Sociodemographic Background Characteristics

Our main racial categories are non-Hispanic white (the reference category), non-Hispanic black, and other, which includes American Indian, Asian/PI, Hispanics, and other race/ethnic groups not included in those already provided. Our reasoning for using this categorization is twofold. First, we are mainly focused on exploring differences between blacks and whites. Second, this is also the racial categorization used within the survey instrument. While we present the results for the other category, it will not be the focus of our discussion.

We also measure a host of individual and family characteristics that have been shown to be associated with debt. These include sex [female, male (referent)], region of residence at first survey wave [west, south, central, and northeast (referent)], residence in an urban area at baseline (1 = yes), family structure at age 12 [lived with a

stepparent, a single parent, or another family arrangement, and lived with both biological parents (referent)], educational attainment of the respondent's most educated parent high school degree or less (referent), some college, and 4-year college degree or more. We also measure parents' income from all sources that is reported in 1997 (in 2010 dollars). Following prior research on debt (Houle 2014), income is coded into the following brackets: <\$40,000; \$40,000–\$59,999; \$60,000–\$99,999; \$100,000–\$150,000; or \$150,000 and higher. The lowest income category—<\$40,000—represents eligibility for the vast majority (90 %) of government financial aid (College Board 2010b). We also adjust for respondent age at interview and survey year.

Postsecondary Educational (PSE) Characteristics

We measure respondents' PSE careers via a range of variables that reflect their postsecondary experiences and institutional characteristics across their postsecondary careers by the survey wave at which they completed the over-25 asset and debt module. These include educational attainment [some 2-year college, 2-year college degree, some 4-year college, 4-year college degree (referent)], current enrollment status [currently enrolled in a postsecondary educational institution or not (referent)], the number of years enrolled in PSE, the percent of years enrolled full-time, the percent of years enrolled at a private institution, and indicators for whether respondents ever attended a for-profit institution (1 = yes) or Historically Black College/University (HBCU; 1 = yes). We also measure indicators of college costs, aid, and parental contribution. This includes a measure of the aid-to-cost ratio of the institutions attended (average amount of aid/sticker price) and the total amount of parents' monetary contribution to college reported by the respondent over their postsecondary career (in 2010 dollars).

Young Adult Characteristics

Because payment and acquisition of student loan debt may also be linked to young adults' attained characteristics, we also measure reported net worth (assets–debts) and wages from employment reported at the wave when the over-25 debts and assets module was completed. Net worth and wages are both reported in constant 2010 dollars. We also control for the respondents' financial literacy using questions regarding compound interest adapted from Lusardi et al. (2010) [1 = respondents answered both questions correctly; 0 = did not (referent)], and a measure of risk preference based on the average response to four questions about respondent's willingness to take risks (0 = lowest;

10 = highest) in (a) general life; (b) financial matters; (c) gambling; (d) major life events.

Analysis Strategy

We primarily use OLS regression to estimate (logged) student loan debt. We log-transform student loan debt because this reduces the right skew of the debt variable, improves model fit, and reduces heteroscedasticity. In Table 1, we present basic descriptive statistics for all variables in the study, for the full sample and by race, with a focus on black–white differences. In Table 2, we show results from OLS regression models that show race differences in debt, and add in wealth, postsecondary characteristics, family contributions, and young adult characteristics to examine the extent to which these factors explain (mediate) race differences in debt. Finally, in Table 3, we present a similar series of models and test for interactions of race by parental wealth in order to examine whether parental wealth may have different implications for debt for black and white young adults.

Results

Descriptive Statistics

Table 1 shows weighted descriptive statistics for the full sample and by race (black/white). Forty-one percent of respondents reported student loan debt; among those with debt, mean student loan debt was \$22,051, and median debt is \$15,806. These estimates of debt are consistent with national estimates for this cohort (Houle 2014; Rothstein and Rouse 2008), suggesting that respondents in the study are representative of student loan debtors in the USA for this particular cohort of young adults.

Consistent with prior work, we find substantial differences in student loan debt by race. Black students report approximately 33 % more debt than whites, though these bivariate differences may be larger when differences in postsecondary characteristics and other variables are taken into account. Sample members tended to have more advantaged backgrounds than the general population, as one would expect in a sample of individuals who completed some postsecondary schooling. The typical respondent came from relatively educated backgrounds, with an average parental income of \$66,939. However, we find large disparities in family background by race. Similar to prior research (Conley 1999; Killewald 2013; Shapiro 2004), we find that college-going black young adults tend to have parents with significantly lower levels of education and income, are more likely to come from single parent families, and have substantially lower net worth compared

Table 1 Descriptive statistics by race, NLSY-97

	Mean or proportion			<i>t</i> test
	Full sample	White (<i>N</i> = 3258)	Black (<i>N</i> = 1244)	
Student loan debt				
R has debt (1 = yes)	.41			
Mean debt among debtors	22,050.70			
Median debt among debtors	15,806.20			
Debt (natural log)	3.93	3.86	4.19	*
Parents' wealth				
Mean net worth	149,842.0	174,871.0	48,494.0	***
Median net worth	73,333.3	101,376.0	9497.4	***
Mean assets by type				
Financial assets	25,818.7	3100.8	6362.6	***
Home equity	62,415.9	72,866.2	19,376.9	***
Retirement accounts	41,386.5	48,211.2	13,279.7	***
College savings account (CSA)	3899.60	4561.52	1492.66	***
Has CSA (1 = yes)	.10	.11	.06	***
CSA amount among holders	38,775.7	40,785.9	27,067.7	*
Other assets	8384.7	11,231.2	4091.5	***
Sociodemographic background				
Parents' income	66,939.0	84,119.5	43,789.9	***
Parents' highest education				
≤High school degree	.31	.26	.48	***
Some college	.30	.31	.32	
Four-year college or more	.39	.43	.21	***
Family structure of origin				
Two parent biological	.61	.66	.34	***
Step family	.12	.12	.14	
Single parent family	.23	.19	.43	***
Other family structure	.04	.02	.09	***
Number of children in HH, 1997	2.3	2.2	3.7	***
Age @ survey	25.0	25.0	25.0	
Year @ survey	2007.1	2007.1	2007.1	
Sex (Female = 1; Male = 0)	.53	.53	.58	**
Urban locale in 1997 (1 = yes)	.71	.67	.91	***
Postsecondary characteristics				
Institution attended/degree attained				
Two-year Institution, no degree	.26	.23	.34	***
Two-year Institution, degree	.10	.10	.10	
Four-year Institution, no degree	.24	.23	.32	***
Four-year Institution, degree	.40	.44	.24	***
Years enrolled in college				
Prop years enrolled full-time	.76	.78	.72	***
Prop years enrolled in private school	.18	.19	.15	***
Attended for-profit (1 = yes)				
Attended HBCU (1 = yes)	.03	.00	.21	***
Institutional generosity (aid/cost)	.74	.69	.82	***
Total parent contribution over career	10,384.0	11,679.0	4216.7	***
Young adult characteristics				
Risk propensity	5.09	5.09	5.08	

Table 1 continued

	Mean or proportion			<i>t</i> test
	Full sample	White (<i>N</i> = 3258)	Black (<i>N</i> = 1244)	
Financial lit Q's correct (1 = yes)	.55	.58	.41	***
Age 25 wages	24,654.40	26,392.70	21,048.44	***
Age 25 net worth	32,149.20	37,182.20	20,185.90	***

*** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .10$

to their white counterparts. Even among this relatively advantaged sample of college-going youth, average parental net worth was nearly four times higher for whites (\$174,841) than for blacks (\$48,494), and these differences are even greater when focusing on median net worth (\$101,376 vs \$9497). These wealth differences can be observed across all types of wealth holdings, but are particularly pronounced for financial assets, home equity, retirement accounts, and college savings account holdings. Racial disparities in wealth in the parent generation persist to the young adult generation, as white young adults report approximately \$17,000 more wealth than black young adults at the age 25 survey. Perhaps a function of differences in socioeconomic status, black youth reported that their parents contributed only \$4200 over the course of their college career on average, compared to nearly \$12,000 for whites. These bivariate descriptive statistics reveal a plethora of differences in the family background, postsecondary careers, and young adult financial lives of black and white students. Given that many of these characteristics are correlated with both race and student loan debt, we adjust for all of these measured characteristics in the multivariate models below.

Multivariate Analyses

Table 2 presents results from OLS regression models predicting logged student loan debt. Because debt is logged, coefficients approximately indicate the proportional change in debt associated with a one-unit change in the independent variables. Model 1 includes race and basic family background characteristics, including parents' education, income, family structure, and NLSY-97 design variables (Winship and Radbill 1994). Consistent with prior research on race and student loan debt, we find that blacks report, on average, 68.2 % more debt than their white counterparts, net of covariates. Put in dollar values, if the average white debtor owes \$22,000, we would expect a comparable black young adult to owe \$36,960.

In Model 2, we add parents' wealth. Consistent with prior research, we find young adults from wealthier backgrounds have significantly less student loan debt than do young adults from less wealthy counterparts. In this model,

a ten thousand dollar increase in net worth is associated with a 2 % decline in student loan debt. Moreover, introducing parents' wealth to the model explains a non-trivial portion of the black–white disparity in student loan debt. Comparing coefficients from Model 1 to Model 2, racial differences in parental wealth account for 13 % of the black–white gap (.594–.682/.682).

Model 3 introduces postsecondary educational institutional characteristics. The inclusion of postsecondary characteristics further reduces the black–white disparity in student loan debt, with black young adults reporting 40 % more debt than whites after controlling for differences in postsecondary careers. Additional analyses (not shown, available upon request) reveal that racial differences in for-profit attendance and institutional generosity (as measured by the aid-to-cost ratio) play the most substantial role in mediating the link between race and student loan debt. In other words, one reason that we find blacks are more indebted than whites is because blacks are more likely to attend for-profit schools and schools that are either less generously funded or provide less aid relative to the sticker price of the institution than white students.

In Model 4, we include a measure of young adults' reports of total family contributions (in \$10,000 increments) to their postsecondary career. Although family contributions are strongly related to student loan debt—with each \$10,000 increase in family contributions associated with a 12 % reduction in student loan debt—we find that it only slightly attenuates the association between race and debt. This may be because race differences in contributions to college are reflected in our measures of parents' socioeconomic status. Indeed, adding family contributions to the model attenuates the coefficients for having parents in the highest income bracket and having a college educated parent. It also slightly attenuates the parental wealth coefficient. Not surprisingly, this suggests that one reason youth from more socioeconomically advantaged backgrounds have less debt is because their parents can contribute more money to their college expenses.

Finally, Model 5 introduces young adult's financial literacy, propensity for risk, and net worth and income at the age 25 survey. Of these variables, only net worth is significantly associated with student loan debt, as a ten

Table 2 OLS regression models predicting racial disparities in (logged) student debt

	Model 1	Model 2	Model 3	Model 4	Model 5
Race (ref: non-Hispanic white)					
Black	.682*** (.177)	.594*** (.178)	.400* (.167)	.394* (.166)	.347* (.164)
Other race	.082 (.203)	.0423 (.203)	-.133 (.179)	-.131 (.179)	-.150 (.178)
Family background					
Parents' net worth (\$10k)		-.021*** (.004)	-.034*** (.004)	-.031*** (.004)	-.026*** (.004)
Parents' income (ref: <\$40k)					
\$40,000–\$59,999	.856*** (.209)	.955*** (.210)	.733*** (.183)	.715*** (.183)	.709*** (.178)
\$60,000–\$99,999	.861*** (.195)	1.050*** (.200)	.682*** (.177)	.667*** (.177)	.663*** (.171)
\$100,000–\$149,999	.103 (.245)	.464+ (.259)	.079 (.233)	.089 (.234)	.068 (.230)
\$150,000+	-.877** (.300)	-.094 (.349)	-.710* (.298)	-.635* (.298)	-.520+ (.292)
Parents' edu (ref: ≤HS)					
Some college	.398* (.171)	.421* (.170)	-.013 (.148)	-.010 (.148)	.003 (.146)
Four-year college degree ⁺	.670*** (.187)	.778*** (.188)	-.539** (.167)	-.500** (.168)	-.555*** (.164)
<i>Postsecondary characteristics</i>					
Education (ref: four-year, degree)					
Two-year, no degree			-1.371*** (.221)	-1.455*** (.222)	-1.389*** (.222)
Two-year, degree			-2.596*** (.227)	-2.672*** (.228)	-2.796*** (.231)
Four-year, no degree			-.957*** (.175)	-1.025*** (.177)	-1.086*** (.179)
Number of years enrolled			.513*** (.0373)	.522*** (.0375)	.488*** (.0371)
Prop. years enrolled full-time			1.577*** (.188)	1.586*** (.188)	1.512*** (.185)
Prop. years enrolled in private institution			1.612*** (.189)	1.733*** (.191)	1.667*** (.194)
Attended for-profit (1 = yes)			.801*** (.174)	.766*** (.174)	.665*** (.172)
Attended HBCU (1 = yes)			.492+ (.287)	.464 (.287)	.437 (.285)
Avg. total aid/sticker price			-.241*** (.0617)	-.248*** (.0619)	-.247*** (.0615)
Family contribution (\$10k)				-.122*** (.032)	-.099** (.032)
Young adult characteristics					
Net worth (\$10k)					-.076*** (.007)

Table 2 continued

	Model 1	Model 2	Model 3	Model 4	Model 5
Wages (\$10 k)					-.033 (.031)
Risk propensity					.043 (.031)
Financial literacy					-.019 (.134)
Constant	-259.1** (96.93)	-239.2* (97.24)	-17.9* (85.18)	-177.8* (85.09)	-11.8 (85.30)

Standard errors in parentheses. $N = 5246$. All models adjust for sex (1 = female), region, family structure at age 14, number of children in the parents' household at baseline, urban/non-urban status, and year/age when assets and debts questions were answers

*** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .10$

Table 3 OLS regression models predicting racial disparities in (logged) student debt by parents' wealth

	Model 1	Model 2	Model 3	Model 4
Race (ref: non-Hispanic white)				
Black	.386* (.195)	.235 (.181)	.242 (.181)	.212 (.178)
Other race	-.034 (.231)	-.245 (.205)	-.239 (.205)	-.234 (.206)
Parents' net worth (\$10 k)	-.024*** (.005)	-.036*** (.004)	-.033*** (.004)	-.028*** (.004)
Black*parents' net worth	.035* (.014)	.027* (.013)	0.025* (0.013)	.023+ (.012)
Other race*parents' net worth	.005 (0.01)	.009 (.010)	.009 (.010)	.007 (.010)
Constant	-244.5* (97.36)	-176.0* (85.46)	-182.4* (85.36)	-115.2 (85.56)
Model covariates				
Family background	Yes	Yes	Yes	Yes
Postsecondary characteristics	No	Yes	Yes	Yes
Family contribution	No	No	Yes	Yes
Young adult characteristics	No	No	No	Yes

Standard errors in parentheses. $N = 5246$. All models adjust for sex (1 = female), region, family structure at age 14, number of children in the parents' household at baseline, urban/non-urban status, and year/age when assets and debts questions were answers

*** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .10$

thousand dollar increase in young adult net worth is associated with 7.6 % less student loan debt. In addition, the inclusion of young adult net worth further explains the racial gap in student loan debt, as the race coefficient is reduced by approximately 12 % from Model 4 to Model 5. We speculate that there are two reasons that young adult net worth may contribute to the racial gap in wealth for two reasons. First, higher levels of young adult net worth may reflect in vivo transfers from the parent and the intergenerational transmission of wealth across generations. We

find some support for this, as the inclusion of young adult net worth attenuates (mediates) the association between parents' net worth and student loan debt. Second, having more economic resources allows young adults to pay down their student loan debt quicker at the conclusion of their postsecondary schooling. Taken together, the results from Table 2 suggest that family background, young adult postsecondary schooling, and young adult social and economic characteristics explain approximately 50 % of the black–white disparity in student loan debt.

The association between student debt and the model covariates was consistent with prior research. After adjusting for postsecondary educational characteristics, young adults from more socioeconomically advantaged families had lower student loan debt than their less socioeconomically advantaged counterparts. Moreover, the association between parents' income and debt was non-linear, such that those from the middle of the income distribution had the highest levels of debt. Consistent with prior research on postsecondary schooling and student loan debt, young adults who consume more postsecondary education (e.g., spend more time in college, get higher degrees, or attend more expensive private institutions) have more student loan debt than do young adults who consume less postsecondary education. In addition, young adults who receive their degrees leave college with significantly more debt than do young adults who do not receive a degree. In line with recent reports on student loan debt (Looney and Yannelis 2015), young adults who attend for-profits and institutions that provide less aid relative to their cost have substantially higher debt than those who do not attend these institutions. Finally, we found that respondents in the "other" race/ethnic category report statistically similar debt as whites. This is in line with prior research that shows Hispanic and Asian students (who make up a large portion of the "other" category) are less or equally likely to borrow for college compared to their white and black counterparts (Cunningham and Santiago 2008).

Heterogeneity in the Association Between Parental Wealth and Debt by Race

In Table 3, we present models to examine whether the association between parents' wealth and student loan debt differs by race. Consistent with the perspective that parents' wealth is less protective of debt for blacks than it is for whites, we find a significant and positive interaction between race and wealth (black*parents' net worth) on debt. The size of this interaction is similar to the main effect, which has two implications for racial disparities in wealth. First, while wealth is protective of (negatively associated with) debt among white youth, wealth is not significantly associated with debt among black youth. As such, the racial disparity in debt increases across the wealth distribution, such that black young adults from wealthier families are more indebted than their white peers, relative to black young adults from less wealthy families. We would argue this difference is substantive in magnitude. For example, based on the results from Model 2 we would expect a white family with \$150,000 net worth (the average amount of net worth in the sample) to have 54 % less debt than a white family with zero net worth ($-.036 \times 15$). Meanwhile, we would expect to see virtually no difference in debt between a black family with zero net

worth and a black family with \$150,000 in net worth. As such, parents' wealth is associated with substantial reductions in student debt for white, but not black, young adults. In additional specifications (not reported here, but available from the authors upon request), we also tested our same models using wealth quintiles rather than a continuous measure. Our results were qualitatively similar, and the race*wealth interaction was significant and positive at the highest wealth quintile, providing further evidence that the racial disparity in student loan debt is highest among those from the wealthiest families.

The size of the interaction term decreases across models as we add in variables that measure postsecondary characteristics, family contribution, and young adult characteristics. The interaction term is reduced to marginal significance ($p < .10$) when we add young adults' net worth to the model. One interpretation is that young adult net worth mediates the association between parents' wealth and debt. In other words, one reason that wealthy black parents are unable to protect their adult children from student loan debt is because they are less able to transmit that wealth to their children than are wealthy white parents.

To further interrogate reasons behind differences in the link between parents' wealth and student debt by race, we compare wealth holdings by type among those with the wealthiest parents by race. We propose that one reason that wealth may not protect black young adults from debt is because their parents may be more likely to possess forms of wealth that are less fungible (transmittable) across generations. Our logic is that in addition to having higher amounts of wealth, whites may also possess forms of wealth that are more easily transferred across generations (i.e., the wealth whites possess is more liquid). For example, parents with high levels of financial assets (stocks/bonds/savings) can easily use these stocks of money to help pay for young adults' college or living experience. The same may be true of home equity, which can be accessed in the form of home equity loans. As we show in Table 4, there are large racial disparities in types of wealth

Table 4 Black–white differences in parents' average wealth holdings by types of wealth among parents in the highest wealth quintile (\$191,180+)

	Average amount (\$)		<i>t</i> test
	White	Black	
Wealth holdings			
Financial assets	81,827	46,579	***
Home equity	154,627	92,555	***
Retirement accounts	116,960	91,915	
College savings account (CSA)	12,323	14,023	
Other assets	30,374	51,655	
<i>N</i> = 1069			

holdings among the wealthiest black and white parents in our sample. Specifically, wealthy black parents have substantially less home equity and only one-half the financial assets of wealthy white parents.

Discussion

Previous research on college access suggests that student loans are a necessity for many minority and disadvantaged students in order to bridge the gap between their parents' limited resources and rising college costs. Our findings expand on this discussion and show that racial differences in student loan debt are not solely a product of differences in family economic and social resources, and that wealth—a key family resource—is not as protective from debt accumulation among blacks as it is for whites.

Replicating prior research, we find large differences in student debt holdings by race, such that blacks begin their young adult years with substantially more debt than their white counterparts. In addition, we find that while a portion of this disparity is explained by differences in family background, and wealth, the black–white disparity in debt is also a function of divergent postsecondary careers, as black students are more likely attend (and may be steered toward) high-cost predatory for-profits, as well as institutions that provide less aid relative to cost. Third, young adults' net worth explains a portion of the black–white disparity in debt, suggesting that both differences in debt accumulation and ability to repay may drive racial disparities in debt in young adulthood. Although we found that differences in family contributions did not play as big of a role in race disparities in debt, this is perhaps not surprising in light of recent research that shows that black parents do more with less, and contribute to college as much as whites, despite having fewer economic resources (Nam et al. 2015). Taken together, these findings suggest that racial inequalities at all stages of the life course—family background, postsecondary careers, and attained status—are important drivers of the racial disparities in debt.

Another key finding of this study is that parents' wealth, while largely protective of indebtedness among whites, is not associated with debt among black youth. As such, the black–white disparity in debt is greatest at the highest levels of parents' net worth.¹ While prior research has noted that race differences in wealth are a key reason that racial economic disadvantages have persisted over time,

and that lack of wealth increases the likelihood that blacks experience downward mobility relative to whites (McBrier and Wilson 2004); much less research has considered how parents' wealth might operate differently for blacks and whites. Our research suggests that even among wealthy blacks, this wealth is not as easily passed down as it is for whites. We speculate that this is because wealthy black families possess forms for wealth that are less transferrable from parents to children, and show that wealthy black families have lower levels of home equity and financial assets than wealthy white families (see Table 4). Moreover, our finding that young adult net worth mediates the association between race and debt may also support this claim, as young adults net worth' may in part reflect financial transfers from parents' to children during the young adult years. Overall, this suggests that while white young adults from wealthy backgrounds benefit from their advantaged background, black young adults who came from wealthier homes are not able to translate that better economic position in early and young adulthood, and may face a higher risk of downward mobility and economic insecurity.

Our findings, coupled with recent research, provide suggestive evidence for how racial disparities in indebtedness may reverberate across the life course. The high debt loads experienced by black students have important implications for college completion, as high levels of student loan debt are associated with dropping out (Dwyer et al. 2012), particularly among black students (Jackson and Reynolds 2013). Racial disparities in student loan debt may also have larger implications for the transition to adulthood. Recent research shows that student loan debt is associated with delayed childbearing (Nau et al. 2015), and marriage (Addo 2014), and as such rising debt may contribute to growing racial differences in successful transitions to adulthood (Furstenberg et al. 2004). Given that blacks experience lower labor market returns to college than whites (Gaddis 2015), while also facing higher debt burdens and dropout risk, black young adults take a great deal more risk of enrolling in college, and reap fewer rewards to that risk. In sum, postsecondary education comes with the expectation of breaking the link between parents' resources and their adult children's attainment (Hout and Diprete 2006), but debt may thwart this potential more for black young adults than whites. Future research should continue to explore how debt may impact racial inequalities across the life course.

Our study sheds new light on the racial dynamics of student loan debt in young adulthood, but is not without limitations. First, because we measure debt at or around age 25, we are unable to examine the repayment or further accumulation of debt across the young adult years. Future research should utilize the age 30 assets and debts surveys

¹ In additional model specifications (available upon request) we examined whether the association between parents' income (like parental wealth) differed for blacks and whites. We found a similar pattern results as we did for wealth, but the finding was not robust to all model specifications.

as the sample ages and the data become available to examine how racial inequalities in student loan debt evolve across the young adult years. Additionally, our measure of parental wealth is measured only at one point in time in 1997 during adolescence. It is possible that wealthy black families experienced large wealth losses in the great recession (Pfeffer et al. 2013), which may help explain why we find racial disparities in student debt is largest at high levels of wealth. Third, we would note that our finding that parents' wealth is less transferable for blacks than it is for whites is somewhat speculative, and thus we encourage future research on this topic. Finally, while our study sheds light on black–white disparities in student loan debt, it does not speak to broader disparities in debt across a broad range of racial and ethnic groups (e.g., Asians, Hispanics, Native Americans). Future research should continue to interrogate race and ethnic disparities in debt among the latest generation of young adults.

Getting a postsecondary education in the USA comes with the expectation of upward social mobility and is increasingly necessary for attaining a living wage. But in an era of rising college costs, declining support for higher education and rising debt, black young adults start their careers at a disadvantage by virtue of the amount of money they owe for their education, take on far more financial risks, and reap fewer rewards from their education than do whites. And, unlike white young adults, their parents' financial resources cannot shield them from debt. While social and economic experiences can help explain racial disparities in debt, the situation is more precarious for black youth, who are not protected by their parents' wealth. In light of these trends, it is increasingly likely that student loan debt is a new mechanism by which social and economic inequalities by race are reproduced across generations.

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