

Racial Disparities in Student Debt and the Reproduction of the Fragile Black Middle Class

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Abstract

A nascent literature recognizes that student loan debt is racialized and disproportionately affects youth of color, especially black youth. In this study, the authors expand on this research and ask whether black-white disparities in student debt persist, decline, or increase across the early adult life course, examine possible mechanisms for changes in racial disparities in student debt across early adulthood, and ask whether racial disparities in student debt contribute to black-white wealth inequality among a recent cohort of college-going young adults. The authors address these questions using nationally representative data from the National Longitudinal Study of Youth 1997, multilevel growth curve models, and linear decomposition methods. There are three findings. First, black-white disparities in debt increase across the early adult life course, and previous research underestimated racial disparities in debt. Second, growth in this racial disparity is partially explained by differences in the social background, postsecondary experiences, and disparities in attained social and economic status of black and white young adults. As a result, the authors find that, compositionally, racial inequalities in student debt account for a substantial minority of the black-white wealth gap in early adulthood and that this contribution increases across the early adult life course. The authors conclude that debt trajectories are more informative than point-in-time estimates and that student debt may be a new mechanism of wealth inequality that creates fragility in the next generation of the black middle class.

Keywords

higher education, wealth, racial inequality, life course, student debt, education

Rising student debt has generated substantial discussion among scholars, policy makers, and the public. The average debtor leaves school with more than \$30,000 in student debt, which is arguably the end result of skyrocketing costs, state defunding of higher institutions, flagging financial aid, and rising access to credit (Bound, Lovenheim, and Turner 2007). To date, much of the scholarly discussion on debt has revolved around whether rising student debt constitutes a crisis (Akers and Chingos 2016), the institutional factors that influence debt (Looney and Yannelis 2015), and the impact of debt on young adult outcomes (Addo 2014; Dwyer, McCloud, and Hodson 2011, 2012; Nau, Dwyer, and Hodson 2015).

A small but growing literature recognizes that the burden of rising debt is racialized and disproportionately shouldered by and burdensome for

students of color, particularly black youth (Cunningham and Santiago 2008; Houle 2014a; Jackson and Reynolds 2013). At the same time, racial disparities in economic outcomes, particularly wealth, are largest among the college educated (Emmons and Noeth 2015). That college-educated blacks have more debt but may not reap similar economic benefits of a college degree as their white counterparts raises important questions about whether rising debt may be contributing to the economic fragility of the black middle class and racial

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inequality among college educated populations more generally (Addo, Houle, and Simon 2016; Seamster and Charron-Chénier 2017). Seamster and Charron-Chénier (2017) recently argued that the racial debt gap is result of “predatory inclusion,” whereby blacks have been granted access to post-secondary institutions but on exploitative financial terms, but little empirical work has examined the consequences of the racial debt gap for the racial wealth gap.

In this article, we pursue three research aims to shed light on the racialized nature of student debt and its consequences for racial wealth disparities. First, building on prior research, we theorize that racial disparities in student loan debt accumulation and repayment are a function of racialized economic hardship and discrimination across the life course. Second, we examine the factors that contribute to black-white differences in debt trajectories over time. Finally, building on these two aims, we address recent claims that student debt may be a new mechanism by which racial economic inequalities are perpetuated across generations and ask if racial disparities in debt are linked with racial disparities in wealth over the early adult life course. Although our study is descriptive, our findings contribute to understanding how existing mechanisms of racial inequality are creating new dynamics that uphold and reproduce racial inequality among college educated populations.

BLACK-WHITE DISPARITIES IN STUDENT DEBT IN AN ERA OF RISING COLLEGE COSTS

In the twenty-first century United States, a college degree remains a near requirement for access to (relatively) high-paying and prestigious middle-class jobs (Hout 2012). The payoff to a college degree, however, is racialized. A wealth of research has shown that the social and economic benefits to a college degree are primarily enjoyed by whites (Gaddis 2015; Hamilton et al. 2015; Jones and Schmitt 2014; Shapiro, Meschede, and Osoro 2013) and that racial disparities in economic outcomes are highest among the college-educated middle class (Emmons and Noeth 2015). Indeed, race scholars argue that higher education does little to reduce racial inequality and that these racialized processes help create a “fragile black middle class,” whereby the black college-educated middle class is more socially and economically fragile and at risk for downward mobility than whites (Landry and Marsh 2011; Wilson 2007).

Missing from this literature is the potential importance of racial differences in the costs and financial risks of attending college. In an era of rising college costs and flagging financial aid, black families and students have turned to student loans to bridge the widening gap between family resources and college costs. Although these loans may help black youth gain access to college, student loans are an imperfect tool for college accessibility and create new financial risks for young people in the pursuit of a college degree (Jackson and Reynolds 2013). Point-in-time estimates of debt show that black young adults have significantly higher debt burdens than whites (Cunningham and Santiago 2008; Houle 2014a; Jackson and Reynolds 2013), such that blacks are both more likely to borrow and owe \$5,000 to \$10,000 more than white debtors (Houle 2014a; Huelsman 2015; Jackson and Reynolds 2013). Indeed, racial disparities in debt are substantially larger than, and independent of, disparities by gender, socioeconomic background, and college preparation (Addo et al. 2016; Houle 2014a).¹ In addition to having more debt, debt is more burdensome for black youth to repay. Black young adults are more likely to default on their loans than white young adults after leaving college (Gross et al. 2009; Huelsman 2015) and report greater concern about the affordability of student loan payments (Ratcliffe and McKernan 2013). More recently, scholars have argued that racial disparities in debt are a form of “predatory inclusion” (Seamster and Charron-Chénier 2017) for youth of color. That is, over the past several decades, black youth have gained greater access to postsecondary institutions, but they have made these gains on exploitative terms, terms that thrust black youth deep into the red relative to whites.

In this article, we build on the nascent literature surrounding race and student debt and seek to understand why there are stark racial disparities in student debt, how and why these disparities change as individuals accumulate and repay debt, and its consequences for black-white wealth inequality among “middle-class,” college-educated populations. Informed by the life-course perspective and its emphasis on examining lives as they unfold in social context (Elder 1985; Elder, Johnson, and Crosnoe 2004), we argue that racial disparities in debt accrual and repayment reflect processes of racialized economic hardship and discrimination that accumulate across the life course for recent cohorts of young adults. Specifically, we argue that existing and historical processes of racial stratification and exclusion compound across the life course

to create inequalities in debt and debt burden. Key mechanisms include early life (parents') social and economic status as well as discrimination and hardship in credit markets, postsecondary institutions, and the labor market in young adulthood.

Early Life and Intergenerational Roots of Student Debt

In early life, racial disparities in family social and economic background play a role in racial disparities in student debt. Racial disparities in family socioeconomic status—in education, income, and wealth—are large and persistent (Killewald 2013; Oliver and Shapiro 2006). Parents' social and economic resources are key determinants of their adult children's college success, as parents use their financial and knowledge resources to help their children navigate postsecondary institutions (Goldrick-Rab and Pfeffer 2009; McCabe and Jackson 2016), contribute money to college expenses (Choy and Berker 2003; Grodsky and Jones 2007; Schoeni and Ross 2005) and take on debt in lieu of their children (Cha, Weagley and Reynolds 2005). The upshot is that young adults from more socioeconomically advantaged backgrounds—by wealth, income, and education—leave college with less debt than their counterparts who are from socially disadvantaged backgrounds (Addo et al. 2016; Houle 2014a). Family wealth is a particularly important resource that drives racial disparities in debt because most financial aid decisions are based on income rather than wealth. Given that the average net wealth of college-educated blacks is less than one tenth that of whites (Emmons and Noeth 2015), white families are more able to draw from their wealth (in the form of liquid assets or home equity loans) to pay for college, transfer their wealth to their children, and protect their children from debt than are black families (Addo et al. 2016; Krivo and Kaufman 2004; McKernan et al. 2014).

Point of Sale: The Role of the College Experience

Also important are racial inequalities that emerge when young people borrow for college. Although student debt is used by students to bridge the gap between family resources and the rising costs of college, black youth are more likely to have private loans, which carry high and variable interest rates, have high fees for deferment and forbearance, and offer few protections for borrowers (Goldrick-Rab

and Houle 2018). Indeed, some have argued that the student loan market is not unlike the mortgage market, where blacks lack access to fair credit and are disproportionately steered toward predatory, high-interest loans that are difficult to repay (Seamster and Charron-Chénier 2017; Williams, Nesiba and McConnell 2005).

Black youth also face discrimination and hardship in postsecondary institutions as students that lead to debt accumulation and debt burden. For example, black young adults are often funneled toward or have access limited to predatory for-profit institutions and underfunded schools, which are associated with high levels of debt accumulation (Cottom 2017; Goldrick-Rab and Houle 2018). These institutions also offer fewer labor market benefits and have high drop-out rates (Cellini and Chaudhary 2014), which increases default risk and makes this debt more difficult to repay.

Life after College: Social and Economic Inequalities and the Burden of Repayment

As young adults, black youth also experience hardship and discrimination in the labor market that makes debt more burdensome. Experimental research shows that among college graduates, black youth are less likely to obtain job offers and receive offers for lower paying positions with fewer options for career advancements than white college graduates (Gaddis 2015). More broadly, black-white disparities in earnings, employment, and wealth are observable in young adulthood (Cancio, Evans, and Maume 1996; Zhang 2008), and because of their precarious economic position black youth may have more difficulty paying down student debt at the same rate as white youth after leaving college.

Racial disparities in the transition to adulthood may also contribute to growing disparities in student debt across the life course. Schneider (2011), for example, showed that black young adults are less likely to be married than white young adults and that this is in part a function of the racial wealth gap. Although wealth (and debt) may influence racial inequalities in the timing of first marriage, it may also be that the economic security of marriage makes it easier for youth to repay debt (Dew 2008, 2011).

Taken together, we argue that these racialized life-course processes accumulate over time to lead black youth to shoulder disproportionately more debt that is harder to repay than their white counterparts. Previous research examining point-in-time estimates of racial disparities in debt supports

this assertion and shows that at age 25, approximately one third of the racial debt disparity can be explained by racial socioeconomic and wealth inequalities in the parents' generation; an additional 30 percent can be explained by postsecondary educational differences, particularly for-profit attendance and attending underfunded institutions that provide less aid; and 12 percent can be explained by young adults' ability to repay in young adulthood, as proxied by their social and economic attainment (e.g., income, employment status) (Addo et al. 2016; Goldrick-Rab and Houle 2018). However, little is known about how or why racial disparities in debt change across the early adult life course.

The Racial Wealth Gap and Student Debt

The aforementioned research suggests that student debt is uniquely racialized and raises questions about whether racial disparities in debt may contribute to racial inequalities among college-educated populations. Recently, scholars have hypothesized that disparities in debt may contribute to long-standing racial inequalities in wealth (Addo et al. 2016; Scott-Clayton and Li 2016; Seamster and Charron-Chénier 2017), particularly among middle-class, college-educated populations. This hypothesis has been motivated by two primary observations. First, the racial wealth gap and the racial student debt gap have increased in recent years (Goldrick-Rab and Houle 2018; Seamster and Charron-Chénier 2017). Second, student debt may inhibit wealth acquisition and in turn exacerbate racial disparities in wealth.

Prior to the recession, median white household net wealth was about eight times greater than that of the median black household. After the recession, median white net wealth was 13 times that of blacks (Kochnar and Fry 2014), which can be partly attributed to the disproportionate impact of the great recession on black families coupled with the uneven economic recovery (Pfeffer, Danzinger, and Schoeni 2013). Racial disparities in debt have also increased in recent decades, particularly among those with college educations. Using repeated cross-sectional data, Seamster and Charron-Chénier (2017) showed that the percentage of black households with student debt and the average debt among black households have increased relative to whites in the past two decades, and these increases cannot be explained by changes in college attendance by race. The correlation between these two trends have led some scholars to

suggest that debt may be reproducing or exacerbating racial inequalities in wealth (Seamster and Charron-Chénier 2017).

Racial disparities in debt may also be linked to racial wealth disparities if student debt inhibits wealth acquisition (Houle and Berger 2015; Zhan, Xiang, and Elliott 2016). If black young adults are struggling to pay down debt, this may prevent them from building savings or purchasing homes relative to whites. In addition, those with high debt burdens may delay marriage and fertility (Addo 2014; Nau et al. 2015), and such delays in the transition to adulthood may impede wealth acquisition in young adulthood (Houle 2014b). Recent research has supported this notion, finding that the deleterious impact of student debt on social and economic outcomes for young adults is stronger for black youth than white youth (Houle and Warner 2017; Walsemann, Ailshire, and Gee 2016). More directly, racial disparities in debt may contribute to racial wealth inequality because if black youth have more debts and fewer assets, mechanically this would increase racial disparities in wealth, as net wealth is the simple difference between assets and debts. However, there has been no systematic examination of the hypothesis that racial inequalities in debt may reproduce or exacerbate racial wealth inequalities.

The Present Study

In this study, we measure debt at multiple time points and ask whether racial disparities in debt, and changes across the life course therein, contribute to the racial wealth gap among those with some postsecondary education. We argue that the use of a single point-in-time measure has important methodological and theoretical consequences that limit our understanding of this issue. One reason is because levels of student debt assessed at a single time point are a poor proxy for debt burden (Dynarski 2015; Looney and Yannelis 2015). Borrowers with the most debt often attend the most expensive private institutions that provide the greatest labor market benefits (Gladioux and Perna 2005) but have less difficulty paying down that debt than those with lower debt levels. In the absence of default data, trajectories of loan repayment over time may provide a better measure of debt burden than point-in-time estimates of student debt. Indeed, recent estimates show that fewer than half (47 percent) of borrowers in repayment have paid at least one dollar toward their principal five years into repayment (U.S. Department of Education 2017). This suggests that most young

adults are either maintaining debt levels well into their postcollege careers or are accumulating debt through interest and fees, but little is known about variation in these trajectories by race.

Another reason is that point-in-time measures of debt do not match our theories or language surrounding debt. Although social scientists have suggested that social inequalities in debt are a function of processes that play out across the life course, cross-sectional or point-in-time debt estimates do not adequately reflect these processes. For example, prior research suggests social inequalities by family background reflect parents' ability to protect their children from accumulating debt (Houle 2014a). However, these resources may also help young adults pay down existing debt in young adulthood. By examining these trajectories over time, we can better disentangle the extent to which these factors predict both accumulation in college (debt at baseline) and debt burden across the early adult life course (debt trajectory), whereas previous studies have primarily focused on debt accumulation (debt at baseline).

Finally, understanding the consequences and scope of student debt for racial inequalities requires that we follow young people as they age and transition into adulthood. For example, because most of our estimates of student debt are from the early adult years, we may be underestimating racial disparities in debt if disparities are increasing across the life course. It is also difficult to assess the consequences of racial disparities in debt unless we follow youth through their early adult life course (Scott-Clayton and Li 2016). Only one study of which we are aware has examined how racial disparities in student debt change over time. Scott-Clayton and Li (2016) used data from the Baccalaureate & Beyond study and found that the black-white disparity in debt increased dramatically after graduation. Our study builds on this work in several ways. First, our data include two-year graduates and noncompleters, while the Baccalaureate & Beyond study was limited only to four-year college graduates. This is particularly important given that two-year graduates and noncompleters have more trouble repaying their student debt than college graduates (Looney and Yannelis 2015). Second, we aim to unpack the life-course mechanisms that explain changing racial disparities over time, whereas the prior study was more descriptive and did not systematically examine how these factors shape differences in debt trajectories. Finally, that study did not examine the consequences of the racial debt gap for the racial wealth gap.

Taken together, we contend that taking a life-course perspective (Elder 1985; Elder et al. 2004)—and following young people over time as they leave school, enter the labor market, and find their social and economic footing—is essential to understanding the dynamics of racial disparities in debt in young adulthood and the ongoing persistence of the racial wealth gap.

DATA AND METHODS

Data

Our data are drawn from the National Longitudinal Study of Youth 1997 Cohort, a nationally representative, stratified, multistage area probability sample of households that yielded 8,984 respondents born between 1980 and 1984. It also oversamples black and Hispanic youth. Survey respondents have been interviewed yearly since the original data collection in 1997 except for a two-year gap between the 2011 and 2013 waves. Sample attrition has been minimal, as 90 percent of respondents who were selected to participate completed the first survey wave, and more than 80 percent of respondents were retained through the 2013 wave (Bureau of Labor Statistics 2005). We limit our analysis to respondents who ever attended college and thus were at risk to accumulate student debt ($n = 5,688$) and restructure the data into a person-wave format (91,008 person-waves). We then drop all person-wave observations before they are administered the debts and assets module (YAST20) at approximately age 20, when debt information was first assessed (remaining $n = 5,688$; 62,545 person-waves). We drop observations before respondents are enrolled in college, such that all respondents enter the data after they have attended college for the first time² ($n = 5,687$; 56,706 person-waves). We also restrict our sample to those who identify as black or white ($n = 4,923$; 49,065 person-waves; see Note 1). We then drop all observations with missing data on study variables ($n = 3,516$; 29,553 person-waves).³

Measures

Student Debt. Student debt is measured at three points during the early adult life course. Respondents were asked questions about types and amounts of debt holdings and assets, including student debt, at approximately ages 20, 25, and 30 as part of the YAST modules. We adjusted debt for inflation and standardized it to reflect 2010 dollars using the Consumer Price Index Research Series (Bureau of Labor Statistics 2010). Although the accuracy of

self-reported debt data is a concern, borrower self-reports and credit reports are extremely similar for student debt (Brown et al. 2011). We use linear interpolation to impute debt between YAST modules⁴ and include the natural logarithm of this measure in our empirical models.⁵

Young Adult Wealth. Net wealth is measured as the total sum of assets less debts, measured at the YAST20, YAST25, and YAST30 surveys, in inflation-adjusted 2010 dollars. We transform net wealth using the inverse hyperbolic sine transformation (Friedline, Masa and Chowa 2015).

Family Background. We measure family background characteristics with time-invariant measures from the baseline (1997) survey. These measures include race (white [referent], black, and other), parents' highest education in 1997 (high school degree or less [referent], some college, four-year college degree or higher), parental wealth (in constant 2010 dollars, inverse hyperbolic sine transformation), parents' income (logged), number of siblings in household, family structure (two-parent biological [referent], single-parent, stepfamily, other family structure), sex (female [referent], male), and region of residence (Northeast [referent], North Central, South, West).

Postsecondary Educational Characteristics. Time-varying variables that reflect annual measures of respondents' cumulative postsecondary educational experiences include highest degree pursued and attained (four-year institution, degree attained [referent]; four-year institution, no degree; two-year institution, degree attained; two-year institution, no degree attained; graduate school, degree attained; graduate school, no degree attained), number of years enrolled, number of enrollment spells (number of times respondent unenrolled and enrolled in postsecondary education), proportion years enrolled full-time, current enrollment status, percentage of years enrolled in a private institution, sticker price of institutions attended over the postsecondary education career (logged), a proxy for the level of generosity of institutions attended (total aid-to-cost ratio), and a dummy indicator of whether the respondent ever attended a for-profit institution.

Young Adult Social and Economic Status. Time-varying measures that reflect young adults' status include age, marital status (never married [referent], married, divorced or separated), parental status (1

= respondent has a child), whether respondents live with their parents (1 = respondent lives with parents), full-time employment (1 = yes), wages (measured in 2010 dollars and transformed using a natural logarithm), home ownership (1 = yes), financial assets (logged, in constant 2010 dollars), and unsecured debt (logged, in constant 2010 dollars).

Analysis Strategy

Our analysis unfolds in two stages. First, we estimate differences in student debt by race and track how this disparity changes across the early adult life course. Second, we ask whether racial differences in student debt contribute to racial disparities in wealth in early adulthood.

In the first analysis stage, we estimate hierarchical linear growth curve models (Raudenbush and Bryk 1992). We measure time as time since first enrollment to account for differences in age at college enrollment.⁶ The models take the form

$$Y_{it} = P_{0i} + P_{1i} \text{Time}_{it} + E_{it}, \quad (1)$$

where the student debt outcome (Y) reported by the respondent i at interview t is estimated as a function of the initial level of debt at the YAST20 module (P_{0i}), a slope that varies as a linear function of time (P_{1i}), and an individual error term (E_{it}). Equation (1) can be reduced to

$$P_{0i} = B_{00} + B_{01} \text{Black}_{0i} + B_{02} \text{Covs}_{0i} + E_{0i} \quad (1a)$$

and

$$P_{1i} = B_{10} + B_{11} \text{Black}_{0i} + B_{12} \text{SCovs}_{0i} + E_{1i}. \quad (1b)$$

Student debt (P_{0i}) is predicted as a function of race (Black_{0i}), covariates (Covs), and a random error term (E_{0i}). We allow the slope of debt (P_{1i}) to vary as a function of race (Black_{0i}) and covariates (SCovs), and a random error term (E_{1i}). This framework allows us to examine several features of debt accrual over time, including (1) racial disparities in student debt at baseline (intercept), (2) how trajectories of student debt vary over time as a function of race (B_{11} slope coefficient), and (3) whether racial differences in debt trajectories are explained by family background characteristics, youth postsecondary experiences, and young adult socioeconomic status. This final step was achieved by allowing the slope of debt to vary by family background, postsecondary characteristics, and young adult characteristics (SCovs) and examining

whether these characteristics explained race differences in debt trajectories (B_{it}).

In the second analysis stage, we use regression decomposition. We use the “means-coefficient” method outlined by Blinder (1973) and Oaxaca (1973). This approach is useful for two reasons. First, we can quantify the contribution of individual characteristics (e.g., student debt) to the racial wealth gap, and second, it allows us to answer the counterfactual question, “How would the wealth gap change if black youth had the same levels of student debt as white youth?”

RESULTS

We present descriptive statistics for the full sample and black-white comparisons in Table 1. Average student debt among debtors in this sample is \$17,570. Although this figure is lower than the national average, this is because it represents average debt for all person-years. For comparison, average debt among debtors is \$12,777 at YAST20, \$22,358 at YAST25, and \$25,397 at YAST30, which is consistent with national estimates for this cohort (Houle 2014a). Supporting prior research, we find that black young adults are both more likely to have debt and have higher levels of (logged) debt than their white counterparts. Moreover, there are also significant black-white differences in family background, postsecondary college experiences, and young adult social and economic status. Black young adults are more likely to come from disadvantaged backgrounds, are more likely to have left college without getting a degree and to attend for-profit institutions, and have significantly lower social and economic well-being in young adulthood. These well-known patterns may play a role in racial differences in student debt over time.

Do Black-white Differences in Debt Increase over Time?

In Table 2, we present results from growth curve models that estimate black-white disparities in debt and how these disparities change over time. Model 1 shows the coefficient for the racial disparity in debt at baseline (intercept), the racial disparity in debt over time (slope), the time coefficient (year; interpreted as the change in debt for whites), and intercept controls for family background, postsecondary educational characteristics, and young adult social and economic characteristics. Models 2 to 4 add slope terms (time-by-covariate interactions)

for family background (Model 2), postsecondary characteristics (Model 3), and young adult socioeconomic characteristics (Model 4). Note that our primary interest across these models is to both examine whether the racial debt gap changes over time (race-by-time slope) and whether family background, college, and young adult characteristics explain this association.

Across these models, we point to three findings. First, supporting prior research, we find that at baseline (intercept) race is significantly associated with debt levels, such that black youth report 85.8 percent ($e^{.620}$) more debt than their white counterparts, after adjusting for family background and postsecondary characteristics. Second, we find that these racial differences in debt at baseline grow over time. After adjusting for all intercept controls (Model 1), the black-white disparity in debt grows by about 6.7 percent annually. That is, black youth start their young adult careers with more debt than whites, and this disparity grows over time. To demonstrate the magnitude of this growing disparity in debt, although blacks hold 85.8 percent more debt at baseline than whites, 15 years later, we would predict this disparity to have increased to approximately 185.8 percent. In other words, racial disparities in debt are large and more than double across the course of young adulthood. The growth of this gap is largely because whites are paying down their debt faster than blacks. In Model 1, the slope coefficient for time represents the annual reduction in debt for whites and shows that whites are paying down debt at a rate 10.8 percent per year ($e^{-.103}$). Blacks, however, are paying down debt at a rate of 3.9 percent per year ($e^{-.103+.065}$).

Third, we find that racial differences in family background, postsecondary experiences, and young adult social and economic factors (that is, allowing the race-by-time association to vary as a function of these variables) partially explain the rising racial debt gap across the early life course. We find that 51 percent of the growing racial disparity in debt across the early adult years is explained by these characteristics (.032 [model 4] – .065 [model 1])/.065), and the black-white slope coefficient is significant only at the $p < .10$ level in the final model. For example, in Table 2, Model 1, on the basis of our results, we would predict that 15 years after being first observed, the racial debt gap increases by 100.5 percent ($15 \times e^{.065}$). However, after adjusting for all potential mechanisms (Model 4), over 15 years, we would predict this racial debt gap to increase by only 48 percent ($15 \times e^{.032}$).

Table 1. Descriptive Statistics.

	Full Sample	Racial Differences		t Test
		Black	White	
Student debt				
R has debt (1 = yes)	0.421	0.471	0.402	***
LN debt	3.848 (4.586)	4.287 (4.628)	3.679 (4.558)	***
Race/ethnicity				
Black	0.278			
White	0.722			
Young adults' wealth				
Net wealth (assets – debts)	33,085.1 (80,189.5)	16,910.2 (58,374.6)	39,299.5 (86,329.4)	***
Social background				
Sex (female = 1)	0.546	0.621	0.517	***
Age (years)	25.14 (3.423)	25.30 (3.406)	25.08 (3.427)	***
Parents education (HS degree or less [referent])				
Some college	0.311	0.315	0.310	
Four-year degree or higher	0.345	0.170	0.412	***
Parents income (1997, LN)	8.545 (4.304)	7.536 (4.463)	8.934 (4.176)	***
Parents' net wealth (LHS transformed)	8.185 (7.143)	5.013 (7.923)	9.408 (6.412)	***
Family structure of origin (referent: two- parent biological)				
Stepfamily	0.127	0.138	0.123	***
Single-parent family	0.285	0.495	0.203	***
Other family structure	0.036	0.073	0.022	***
Number of siblings in household (1997)	2.287 (1.157)	2.465 (1.372)	2.218 (1.055)	***
Postsecondary educational characteristics				
Highest degree pursued/attained (referent: four-year college, degree attained, or higher)				
Two-year college, no degree attained	0.277	0.347	0.250	***
Two-year college, degree attained	0.089	0.082	0.091	*
Four-year college, no degree attained	0.338	0.371	0.325	***
Graduate school, no degree attained	0.045	0.039	0.047	**
Graduate school, degree attained	0.040	0.0293	0.0440	***
R is currently enrolled (1 = yes)	0.447	0.454	0.444	
Years enrolled in college	4.381 (2.339)	4.190 (2.489)	4.454 (2.274)	***
Proportion years enrolled full-time	0.772 (0.345)	0.733 (0.366)	0.787 (0.335)	***
Proportion years enrolled in private institution	0.180 (0.342)	0.153 (0.315)	0.190 (0.351)	***
Attended for-profit (1 = yes)	0.087	0.140	0.067	***
Total aid-to-cost ratio	0.751 (1.377)	0.858 (1.519)	0.711 (1.316)	***
Sticker price (logged)	8.512 (0.942)	8.449 (0.844)	8.536 (0.976)	***
Number of times R unenrolled	0.654 (0.619)	0.687 (0.649)	0.641 (0.607)	***
Number of times R reenrolled	0.207 (0.459)	0.248 (0.508)	0.191 (0.438)	***
Young adult social/economic characteristics				

(continued)

Table 1. (continued)

	Full Sample	Racial Differences		t Test
		Black	White	
Marital status (referent: never married)				
Married	0.251	0.151	0.290	***
Divorced/separated	0.039	0.037	0.040	
Wages (LN)	8.498 (3.348)	7.857 (3.778)	8.745 (3.131)	***
Unsecured debt (LN)	4.255 (3.820)	3.804 (3.714)	4.429 (3.846)	***
Employed full-time (I = yes)	0.530	0.505	0.540	***
R has biological child (I = yes)	0.316	0.477	0.253	***
R lives with parents (I = yes)	0.318	0.348	0.306	***
R owns home (I = yes)	0.187	0.102	0.220	***
Financial assets (LN)	6.983 (3.403)	5.342 (3.743)	7.616 (3.033)	***
Observations (person-years)	29,553	8,225	21,328	

Note: Mean differences are reported for interval variables; proportions are shown for ordinal/nominal variables.

Values in parentheses are standard deviations. Other variables not shown: urban residence (I = yes), region at survey baseline. IHS = inverse hyperbolic sine; LN = natural logarithm; R = respondent.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Comparing these models (and via supplementary analyses not shown), young adult labor market characteristics are stronger mediators of the growing racial debt gap (race-by-time slope) than family background or postsecondary educational characteristics. This is in contrast to previous research on social determinants of debt accumulation, which shows that family background differences and postsecondary characteristics explain a substantial portion of the racial debt gap soon after young adults leave college (Addo et al. 2016). This suggests that family background and postsecondary characteristics play a larger role in explaining racial differences in debt accumulation (the intercept), while youth's socioeconomic status plays a larger role in the ability to repay that debt (the slope coefficient). Supplementary results also reveal that degree outcomes explain a larger portion of the growth in the racial debt gap than other postsecondary characteristics, suggesting that degree non-completion is an important (but only partial) mechanism of the rising racial debt gap.⁷

Do Racial Disparities in Student Debt Contribute to Racial Disparities in Wealth?

Our third and final analysis examines the contribution of racial disparities in student loan debt to the racial wealth gap. We present results in Table 3.⁸

As shown in Table 3, the average racial wealth gap is \$46,848.50.⁹ For this recent cohort of young adults, both black and white, wealth levels are quite responsive to the observable characteristics we include in our model, explaining 92 percent of the wealth differential. This decomposition exercise suggests that if black young adults had the same composition of characteristics as their white counterparts (on the basis of the variables we include in the decomposition) they would have 92 percent of the average wealth of whites.

When we disaggregate the explained portion of the wealth gap, we find that 10.4 percent of the racial wealth gap is explained by differences in student loans for the young adults in our sample. Alternatively stated, black young adults held 10.4 percent less wealth relative to their white counterparts because of their higher student debt burdens. Educational differences explain about 14 percent of the wealth differential, while racial disparities related to young adult social roles account for additional 36 percent of the wealth gap.

Next, we ask whether the contribution of student debt to the racial wealth gap increases across early adulthood. To address this question, we present results from a linear decomposition models stratified by YAST modules conducted when respondents are (approximately) ages 25 and 30 in Table 4.¹⁰ Two findings emerge from Table 4. First, we find that the racial wealth gap nearly triples

Table 2. Hierarchical Linear Models Predicting Racial Disparities in Logged Student Debt at Baseline (Intercept) and over Time (Slope).

	Model 1	Model 2	Model 3	Model 4
Intercept estimates				
Race (referent: white)				
Black	0.620*** (0.142)	0.636*** (0.142)	0.521*** (0.142)	0.609*** (0.144)
Slope estimates				
Time	-0.103*** (0.024)	-0.094** (0.031)	-0.415*** (0.089)	-0.317*** (0.091)
Race (Race × Time slope)				
Black	0.065*** (0.016)	0.053** (0.017)	0.057** (0.017)	0.032 [†] (0.018)
Model covariates				
Intercept covariates				
Family background ^a	Yes	Yes	Yes	Yes
PSE characteristics ^b	Yes	Yes	Yes	Yes
Young adult characteristics ^c	Yes	Yes	Yes	Yes
Slope covariates				
Family background ^a	No	Yes	Yes	Yes
PSE characteristics ^b	No	No	Yes	Yes
Young adult characteristics ^c	No	No	No	Yes

Note: $N = 29,553$ person-years. Values in parentheses are standard errors. All models adjust for number of siblings in household at baseline, family structure of origin, age, sex, region of origin, and urban residence at baseline. PSE = postsecondary education.

^aParents' income (1997), parents' wealth (1997), and parents' education (1997).

^bDegree enrolled and attained (four-year, degree [referent]; four-year, no degree, two-year, degree; two-year, no degree), years enrolled, percentage of years enrolled full-time, percentage of years enrolled at private institution, number of enrollment spells, for-profit attendance, sticker price (in-state tuition and fees, logged), and institutional generosity (total aid as a proportion of sticker price).

^cMarital status, wages (logged), full-time employment status, home ownership, financial assets (logged), unsecured debt (logged), parental status, and residence with parents.

[†] $p < .10$. ** $p < .01$. *** $p < .001$.

between the YAST25 and YAST30 modules, supporting previous research (Oliver and Shapiro 2001). Although white young adults accumulate wealth over this time period (their wealth doubles), black youth experience negligible wealth gains. Second, we find that the contribution of student debt to the racial wealth gap increases over time, from 13 percent at the YAST25 module to 23 percent at the YAST30 module.

DISCUSSION

A small but growing literature suggests that rising student debt and its consequences are racialized and that black youth are disproportionately burdened with debt. In this study, we expand on this work and ask the extent to which black-white disparities in debt persist, decline, or increase across the early adult life course, examine possible mechanisms for racial disparities in trajectories of

student debt, and ask whether the racial disparity in student debt is contributing to black-white wealth inequality among a recent cohort of college-going young adults. We have three findings. First, we find that this racial disparity not only persists but increases across the early adult life course from around the early 20s to mid-30s. Second, this racial disparity is partially explained by differences in the social background, postsecondary experiences, and young adult social and economic status of black and white youth. As a result of this racialized debt gap, we find that, compositionally, racial inequalities in student debt account for a substantial minority of the black-white wealth gap in early adulthood and that the contribution of student debt to racial inequalities in wealth increase across the early adult years. That is, to the extent that student debt is a crisis, it is more of a crisis for black youth, which may have consequences for the next generation of the black middle class.

Table 3. Results from Linear Decomposition of Racial Wealth Gap in Young Adulthood (Pooled Sample).

Panel A: Black-white Wealth Gap		
	IHS Transformed	Real Dollars
White net wealth	6.766 (0.155)	
Black net wealth	5.350 (0.245)	
Wealth gap	1.416 (0.285)	\$46,848.50
Panel B: Decomposition of Black-white Wealth Gap		
	<i>b</i>	Percentage Contribution to Black-white Wealth Gap
Total explained	1.298 (0.223)	91.573
Total unexplained	0.119 (0.296)	8.411
Student debt (LN)	0.148 (0.147)	10.47
Sociodemographic background ^a	.201 (0.157)	14.24
PSE characteristics ^b	0.195 (0.072)	13.78
Young adult social roles ^c	0.509 (0.094)	35.97
Employment characteristics ^d	0.243 (0.049)	17.13

Note: Estimates from YAST-wave data (individuals observed at three time points: YAST20, YAST25, and YAST30; *n* = 3,210). Values in parentheses are standard errors. IHS = inverse hyperbolic sine; LN = natural logarithm; PSE = postsecondary education.

^aParents' education, income, net wealth, family structure in adolescence, region of origin, and age.

^bDegree enrolled and attained, enrollment spells, years enrolled, percentage years enrolled full-time, percentage years enrolled at private institution, for-profit attendance, logged sticker price, and institutional generosity.

^cMarital status, parental status, and coresidence with parents.

^dWages (logged) and full-time employment status.

Table 4. Results from Linear Decomposition of Racial Wealth Gap in Young Adulthood (by YAST Module).

	YAST25	YAST30
Black-white wealth gap		
White net wealth	\$38,895	\$75,768
Black net wealth	\$17,018	\$19,190
Wealth gap	\$21,877	\$56,578
Contribution to black-white wealth gap (%)		
Student debt (LN)	13.23	23.32

Note: Estimates from YAST-wave data (individuals observed at three time points: YAST20, YAST25, and YAST30; *n* = 3,210). Values in parentheses are standard errors. Decomposition also adjusts for parents' education, income, net wealth, family structure in adolescence, region of origin, age, degree enrolled and attained, enrollment spells, years enrolled, percentage years enrolled full-time, percentage years enrolled at private institution, for-profit attendance, logged sticker price, institutional generosity, marital status, parental status, coresidence with parents, wages (logged), and full-time employment status. LN = natural logarithm.

Our findings both support and extend prior research on racial disparities in student debt in young adulthood. Previous research relied on cross-sectional snapshots of student debt among younger adults and showed that racial disparities in debt and debt burden are wide. Our study builds on this work and shows that this gap is smaller when

young adults leave college but grows substantially over the early adult life course, and as such, previous studies may underestimate racial debt disparities. Addo et al. (2016), for example, found that net of family background and postsecondary educational characteristics, blacks report 39 percent more debt than whites at age 25, though this work

does not recognize (as we find in this study) that this disparity increases substantially as young adults age into their 30s. Thus, future research should consider examining the racial debt gap at multiple points in the life course.

We theorize that changes in racial disparities in debt over time are a function of hardship and discrimination experienced at different stages of the life course: family resources when young, postsecondary experiences and credit market access as students, and social and financial success as young adults. Our proxies for these measures explain approximately half of the growing racial debt gap, suggesting that unmeasured factors, such as discrimination in credit markets or opportunities available in the neighborhoods that young people reside in (Pattillo 1999), may be important drivers of racial inequalities in debt across the early adult life course. Interestingly, our measures of young adult labor market characteristics (employment, wages) explained more of the growth in the racial debt gap over time than did family background or postsecondary educational experiences. When taken together with previous research on family background disparities in debt accumulation (Houle 2014a), this suggests that family background characteristics may be stronger predictors of debt accumulation (debt at baseline), while young adult socioeconomic characteristics are stronger predictors of young adults' ability to repay debt.

If racial disparities in debt are wide and increasing over time, are there consequences for racial inequality? The results from our decomposition analyses suggest that these racial disparities in debt and debt burden are wide enough to contribute to a significant minority of the racial gap in wealth among the current cohort of college going youth. Our estimates indicate that if black young adults had equivalent student debt levels to white young adults, the racial wealth gap in young adulthood would be reduced by about 10 percent. Our study therefore provides at least some support for recent claims that student debt may be a mechanism by which racial gaps in wealth are reproduced in the latest generation of young people. However, our decomposition analysis only speaks to how racial differences in the composition of their balance sheet (and student debt) explains racial differences in net wealth. That is, one could hypothesize that student debt could affect net wealth in two ways. First, it could do so compositionally—dragging down net wealth mechanically by adding to the negative side of the balance sheet (which is what we examine in our decomposition analysis).

Second, student debt could prevent youth from saving, and high debt loads could prevent youth from buying homes, thus preventing asset acquisition. To better examine this second pathway, we conducted alternative analyses on a measure of net wealth that did not include student debt. In these analyses, student debt contributed virtually nothing to the racial wealth gap. This supports recent research that suggests that student debt has small to null effects on the probability of home ownership (Houle and Berger 2015). To the extent that student debt is affecting the racial wealth gap, its impact appears to be driven by its contribution to the composition of net wealth, rather than causal effects of debt on asset acquisition.

Our findings, coupled with recent research, provide suggestive evidence for how racial disparities in indebtedness may have implications for the next generation of the black middle class. Recent research on indebtedness has emphasized that rising debt burdens has made the middle class economically fragile (Leicht and Fitzgerald 2007; Sullivan, Warren, and Westbrook 2000). However, race scholars have long noted that the black middle class is uniquely fragile; that is, not only are blacks less likely than whites to attain middle class status, but their position is far more precarious once they achieve that status (Landry and Marsh 2011; Pattillo 1999), which is in part a function of racial disparities in wealth that are a legacy of slavery and Jim Crow legislation in the United States (Conley 1999; Oliver and Shapiro 2006). Our study provides a bridge to these two literatures and suggests that racial inequalities in student debt may contribute to the fragility of the next generation of the black middle class. That is, although blacks benefit socially and economically from postsecondary education, in an era of high debt and rising costs, they fall further behind whites in its pursuit, an example of *predatory inclusion* (Seamster and Charron-Chénier 2017).

Our study also provides new information regarding the association between dimensions of inequality and processes of debt accumulation and repayment. Social scientists who study debt often rely on point-in-time estimates of absolute debt levels, which are poor proxies of debt burden. We argue that in the absence of student debt default data (which are generally available only in aggregate, administrative data), examining trajectories over time provides a better measure of debt burden and repayment difficulties than point-in-time estimates. Future research might also examine how trajectories of debt are linked to young adult social

and economic outcomes to better understand the consequences of student debt.

This study is not without limitations. We are unable to follow these young adults as they age into their later adult years and thus may be under- or over-estimating inequalities in debt and its consequences across the life course. In addition, our decomposition analysis is descriptive and illustrative of the potential impact of student debt on racial disparities in wealth, but we concede that we cannot speak to causal processes with our observational data. Third, missing data may bias our findings and limit generalizability, though our findings are consistent with supplementary analyses where we used multiply imputed data; these models are available upon request. Finally, our focus is on black-white differences, and data limitations preclude us from examining a broader range of racial and ethnic groups.

Despite limitations, our study sheds new light on racial inequalities in student debt and suggests that our previous estimates have underestimated these disparities. Getting a postsecondary education in the United States 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 and declining support for higher education, black young adults start their careers deep in the red, take on far more financial risks, and reap fewer rewards from their education than do whites. These racial disparities grow across the early life course and may contribute to the fragility of the next generation of the black middle class. In light of these trends, it is plausible that student debt is a new mechanism by which racial social and economic inequalities are reproduced across generations.

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NOTES

1. Our focus here is on black-white disparities, because current research shows that these racial disparities are larger than other racial/ethnic disparities. For example, Asian and Hispanic debt loads tend to more closely resemble average debt for whites (Scott-Clayton and Li 2016).

2. We also estimate models dropping waves when respondents were enrolled in college. The results presented here are substantively similar to those results, though our final estimates are smaller.
3. Most missing data are from parental wealth (30 percent) and for-profit status and sticker price (27 percent). Dropping this variable from the analysis or using multiple imputation does not change the study findings. Respondents who attrited were on average from more socially disadvantaged backgrounds (by parents' education, wealth, and income), but there are only negligible differences by race.
4. For example, a respondent observed at age 28 is assumed to have debt levels that fall between their reported values in the YAST25 module and YAST30 module. Results presented here are similar when data are restructured into a YAST-wave format (where respondents are observed three times, once at each YAST survey). This is a common method when the variable is expected to be approximated by a linear trajectory over time (between waves) (see Houle and Warner 2017). We made the decision to interpolate debt so as to not omit annual variation in our key independent variables and covariates, and to ensure that time started once individuals had reported attending college.
5. Because debt amount may not reflect debt burden (Dynarski 2015), we also measure debt-to-asset and debt-to-income ratios, which produced similar results.
6. We also used survey year as a measure of time but chose time since enrollment in the final models to ensure that respondents entered the data (risk set) only after they had gone to college. Models using survey year as a measure of time produce substantively similar (though slightly larger) estimates. We also modeled time with higher order polynomials, which produced similar results.
7. Scott-Clayton and Li's (2016) work on those who complete a four-year degree suggests that graduate school enrollment plays an important role in explaining the rising racial debt disparity. In supplementary analysis, we found less support for this, which is likely because of the small number of graduate students in our sample and because our data include degree noncompleters.
8. In this analysis, we also restrict our sample to blacks and whites and restructure the data into three time points to reflect the YAST20, YAST25, and YAST30 debt and asset modules ($n = 3,210, 9,630$ person-years).
9. To interpret the black-white difference in real dollars, we take the β coefficient for race and multiply it by the square root of the squared mean of net wealth in real dollars (shown in Table 1) plus 1: $(y^2 + 1)^{0.5} \times \beta_x$ (see Shaefer, Song, and Williams Shanks 2013:673, footnote 11).
10. We restrict our analysis to ages 25 and 30 because age 20 is relatively young to be examining differences in wealth, but these results are available on request.

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