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Intergroup disparity among student loan borrowers

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Abstract

This paper uses stratification economics to study intergroup disparities among student loan borrowers. Today, approximately 44 million Americans hold around US $1.7 trillion in student loan debt, with over 20% of borrowers in default. Over one million borrowers fall into default annually. We find that Black and first-generation students have lower college completion rates, default more often on student loan debts, and gain less of a wage premium from their college degrees and graduate degrees compared to white graduates. We also find significant racial and class differences in household wealth generation among college graduates. We use the most recent data from the Federal Reserve Bank of New York's Consumer Credit Panel and the Survey of Consumer Finances to study the changing size and distribution of student loan debt and default rates based on race and class. What we find is that the student loan debt system creates significant debt traps for many Black and first-generation students.

Keywords Class disparity · First-generation · For-profit colleges · Higher Education Act · Income disparity · Intergenerational wealth · Racial disparity · Stratification economics · Student loan debt

JEL Classification D31 · G51 · I22 · I24 · I26 · Z13

1 Introduction

This paper uses stratification economics and an economics of exclusion framework to analyze the student loan system in America (Addo and Darity 2020; Darity 2005; Davis 2019). We study how student loans affect subgroups along racial

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and class lines in ways that impede or exclude Black and first-generation college students from the wealth and income benefits of higher education (Ards et al., 2015). Orthodox economics assumes individuals possess agency to overcome race, class, and other identities that face discrimination; in contrast, stratification economics refutes this thinking, arguing instead that dominant groups embed unfair advantages into new or reformed policy areas. William Darity (2005) states, "Stratification economics examines the structural and intentional processes generating hierarchy and, correspondingly, income and wealth inequality between ascriptively distinguished groups" (p. 144). Accordingly, stratification economics offers the ideal framework to examine the student loan system because it has generated significant and persistent disparities among groups of borrowers, and it has exhibited via policy and rule choices discriminatory practices that perpetuate financial and social inequities.

Financing of higher education did not always exist in its current form. Prior to the 1980s, grants combined with direct government aid to colleges and universities financed higher education, and this coincided with an era when Black, Hispanic, and first-generation students encountered daunting barriers to entry into higher education. For example, up to the end of the 1960s, there were still 19 states operating segregated universities and colleges (Litolff, 2007). Publicly subsidized college costs benefited mostly white students who received the income and wealth gain advantages from low-cost college degrees. This in turn placed college educated white families in a better position than non-white families to participate in the current loan-based system predicated on tapping household wealth (Addo and Darity 2020; Brown 2021; Hamilton and Darity 2017; Houle and Addo 2019). Policymakers claimed greater access and eventual income and wealth gains for underrepresented groups as the official rationale behind the shift from a public-funded system to the current individual-funded system; however, after four decades, these goals remain largely unrealized for Black and first-generation students.

Our paper proceeds as follows: First, we examine the history and structure of the student loan system and how, contrary to its original purpose of promoting social mobility, the system has instead created insurmountable student debt traps for many Black, low-income, and wealth-poor student loan borrowers. We identify several factors that explain increasing borrower default rates, and how Black and first-generation students are harmed and ensnared by the system. For example, we find that when looking exclusively at college-educated households, income and wealth inequities between races is both significant and persistent over time. Second, we use data from the Federal Reserve Bank of New York (2021) and the Survey of Consumer Finances (2021) to analyze intergroup disparities among student loan borrowers based on race and class. Specifically, we address how much student loan debt exists among these groups and the repayment outcomes on this debt. Third, based on our empirical findings, we provide some policy proposals to reduce intergroup college-funding disparities that lead to indebtedness among Black and first-generation college students.

2 A brief history of student loans in the USA

Federal involvement in higher education dates to the mid-nineteenth century. During the American Civil War, President Abraham Lincoln signed the Morrill Act (1862) that gave eleven million acres of federal land to states to build universities geared toward modernizing American farming. This Act is still impactful with 1.7 million college students now enrolled in one of the 109 land-grant universities operating in all 50 US states (Croft 2019; McDowell 2003). However, it is important to note that when the Morrill Act (1862) was enacted universities were mostly reserved for wealthy white males. One study reported that only 390 Black students graduated from white colleges by 1900, and some prominent schools such as Duke, Georgetown, and the University of Virginia did not graduate a Black student until the 1950s and 1960s (Slater 1994). Rather than integrate Black students into existing universities, 19 US states maintained racial segregation by building "separate but equal" Black land grant colleges, known today as Historically Black Colleges and Universities (HBCUs) (Litolff 2007).

One hundred years after the Morrill Act, federal student loans emerged when Presient Eisenhower signed the National Defense Education Act (NDEA) of 1958 (Mitchell 2021). This Act earmarked US $1 billion for student loans to incentivize students to pursue degrees in science, mathematics, and foreign languages (Fleming 1960). President Lyndon B. Johnson is credited with expanding college access for Black and low-income students by making student loans available to everyone by signing the Higher Education Act (HEA) of 1965. In a commencement address at the University of Michigan in 1964, Johnson told the graduates that his vision for a Great Society "…[d]emands an end to poverty and racial injustice, to which we are totally committed in our time [….] So I want to talk to you today about three places where we begin to build the Great Society – in our cities, in our countryside, and in our classrooms [….] Each year more than 100,000 high school graduates, with proven ability, do not enter college because they cannot afford it" (Johnson 1964).

In 1972, during a revision of the HEA, President Nixon established the Student Loan Marketing Association (i.e., Sallie Mae), which was a government sponsored enterprise (GSE) designed to work with the US Treasury in purchasing government-backed student loans. Though Sallie Mae was privatized in 2004, it continues to receive funding as if it were still a GSE (Collinge 2010). Having Sallie Mae administer the student loan industry has contributed to the student debt crisis because as a for-profit company it is primarily focused on maximizing profits for investors rather than promoting the well-being of student borrowers (Loonin 2014).

After the 2008 economic recession when many loan markets froze, President Obama was able to legislate approval to remove banks from the student loan debt market and have the government directly issue and guarantee these loans. Before this change, banks and a variety of other financial organizations were responsible for most federal student loans. The intermediaries known as guarantee agencies insured the loans as federally guaranteed (Burd 2019). The government paid premiums to these various entities. These loans would be serviced by third parties; however, the middlemen were removed, which reduced costs, increased oversight, and reduced some conflicts of interest between underwriters of debt and borrowers. In this instance, the third parties merely service the loans funded by the government.

2.1 Sallie Mae/Navient

Sallie Mae is the country's largest provider of student loans. Sallie Mae's original mission was to encourage banks, schools, and other lenders to give student loans to increase access to higher education. Sallie Mae would then purchase these loans (like Freddie Mac and Fannie Mae for home loans). The objective was to transfer some of the financial costs of college from the government to students. By the early 1990s, Sallie Mae controlled over one-third of the student loan market for federally guaranteed student loans. In 1995, Sallie Mae began to privatize (fully privatized in 2004) and created initiatives such as school-as-lender programs where colleges profited when they sent student loans to Sallie Mae (Stanton 2008; Arnold et al. 2012). They also started lobbying government officials more, which led to more subsidies for them and eroded consumer protections (Collinge 2010). In 2014, Sallie Mae split into two companies, Navient, which handles education loan management and the new Sallie Mae that is a consumer banking business. (We will refer to these entities as Navient from here on.)

Over the past few decades, bankruptcy protections, statutes of limitations, refinancing rights, and other consumer protections have eroded, or disappeared entirely, for student loans. Removing consumer protections has made the student loan lending business extremely profitable—in part because student loans offered lenders nearly full repayment in case of default for federally secured loans. Student loan companies not only collect interest on loans and subsidy payments from the federal government, but they get additional profit from penalties and fees on defaulted debt. The added cost of penalties, fees, collection costs, and compound interest can significantly inflate the outstanding loan balance. Judith Scott-Clayton and Jing Li (2016) found that excessive late penalties help explain why the gap between Black student debt and white student debt more than triples in the years after graduation.

The Budgetary Reform Act of 1978 and subsequent legislation in 2005 also severely limited borrowers from using bankruptcy laws to discharge student debt (Lewis 2019). Navient has consistently lobbied against congressional proposals aimed at allowing student borrowers to discharge student debt during bankruptcy (see proposal for bankruptcy reform in Sect. 5). In addition, the Higher Education Act amendment in 1998 removed the statutes of limitations for the collection of student loans. Student loans from earlier decades were retroactively collectible. Today, student loans are exempt from state usury laws and do not have to adhere to the Truth in Lending Act (TILA) signed in 1968. The Federal Trade Commission explicitly stated in the Fair Debt Collection and Practices Act of 2010 that state-run student loan agencies did not have to adhere to the Act. So, student loan collectors have considerable power when collecting debts from defaulted student loan borrowers (see Collinge 2010).

Opportunities to refinance and consolidate loans are areas where student loans differ from all other consumer loans. Federal legislation dictates that once a student takes on a loan, it is nearly impossible to switch lenders; for example, nothing comparable to the mortgage refinance market or transferring credit card balances to another card company exists for student loans. All other consumer loans allow borrowers to seek new lenders that offer better terms, but this is not the case for most student loans. Again, this gives lenders (e.g., Navient) considerable power over borrowers.

In addition to student loans lacking many consumer protections, Congress passed legislation making delinquent student debt profitable. The legislation let the industry set their own fees and penalties on borrowers. It also gave the industry carte blanche in how they collect that debt (see Kreighbaum 2018). The provisions were so perverse that lending companies were authorized to garnish wages, Social Security, disability, tax refunds, and suspend state-issued professional licenses all without court approval (Collinge 2010, 5). Essentially, student loan collections agencies are above consumer protection laws.

Much like the mortgage industry in the 2000s, student loan lenders have little incentive to do their due diligence ensuring borrowers can reasonably pay off their debt. In fact, quite the opposite, arguably, Navient profits more from bad loans than good ones. Federally guaranteed loans are backed by the federal government, which offers no default risk to lenders in most cases. Consequently, if borrowers default, not only does Navient get paid by the federal government for the loans, but the debt then goes into collections and student loan debt collectors (companies often owned by the originators—e.g., Navient) can raise interest rates, collect larger fees, and penalties, and borrowers have little recourse since they cannot discharge student loan debts in bankruptcy and/or refinance their debt.

2.2 Student loan debt delinquency

Perhaps of greater concern than the growing amount of student loan debt is the growing debt delinquency rates. If people are taking on loans but paying them back with relative ease, then, we could argue that the market is loaning money efficiently—students take loans, get degrees, and earn higher incomes that they then use to pay back the loans. However, this ideal market scenario does not appear to be the case for many borrowers. The overall 6-year college graduation rate is 54.8%, but this differs by race. Six-year graduation rates for 4-year degrees among white students is 63.2%, Hispanic students is 45.8%, and Black students is 38% (Shapiro et al. 2017). Hamilton and Darity (2017) found that Black students are one-third less likely to graduate from college than white students because of financial pressures and the predatory practices of for-profit colleges. They refer to for-pofit colleges as “low-value debt bombs” because 80% of Black students enrolled in for-profit colleges drop-out over a 6-year period with an average of US $40,000 of student loan debt (Hamilton and Darity 2017). Dropping out of college with high levels of student loan debt increases the likelihood of payment deliquency and loan defaults.

Research by Adam Looney and Constantine Yannelis (2015) shows that most delinquencies occur among non-traditional borrowers—those who attended community college and for-profit colleges. In the past (prior to the year 2000), there were few for-profit colleges and most community college students did not borrow, as a total group, they made up a small portion of student loan borrowers. In the last couple of decades, for-profit colleges embraced using the internet to offer classes, advertised far more aggressively than nonprofit colleges, and a college degree became a minimum requirement for many jobs. Consequently, these non-traditional students have come to represent half of all borrowers of federal student loans (which represents over 85% of the student loan market) and due to low graduation rates, representing the majority of defaults. “Of all students who left school and who started to repay federal loans in 2011 and who had fallen into default by 2013, 70% were non-traditional borrowers” (Looney and Yannelis 2015, 2). Traditional borrowers graduating from four-year public and private institutions experienced a default rate of 8% in 2011 compared to a default rate of 21% for non-traditional borrowers. They found that the main reason for the differences in default rates was the labor market outcomes were much more favorable for traditional borrowers versus non-traditional borrowers, which could also result from racial bias in the labor market (see Vijaya et al. 2015). This outcome compounded problems for student loan borrowers who were hoping to gain a wage premium for their degrees and instead received little (or no) premium but now have debt to repay. In addition, “the unemployment rate for Black college graduates is higher now than it was fifty years ago” (Brown 2021, 134).

Turning back to for-profit colleges, this sector of the student loan market has received increased scrutiny due to low graduation rates and high default rates of borrowers. A 2-year investigation by the US Senate (2012) Committee on Health, Education, Labor, and Pensions discovered that while for-profit students only represented 13% of college students in the USA, they accounted for 47% of loan defaults. They also found that 96% of for-profit college students took out loans—much higher than community colleges (13%) and 4-year public colleges (48%). A recent study from the Student Borrower Protection Center (SBPC) found that for-profit colleges are almost twice as likely to exist in Black and Hispanic communities as they are in white communities, and many adopt the same types of predatory tactics employed by other “wealth stripping” companies such as payday lenders and check cashing businesses (SBPC 2021). While Black students comprise approximately 13% of the total undergraduate population, they represent up to 27% of for-profit enrollment (Arbeit and Horn 2017). Among Black for-profit students 67% default on their student loans (SBPC 2021). One recent study shows that only 14.2% of Black students graduate from for-profit colleges, compared with 42.9% of Black students who attend public colleges and 45.5% of Black students who attend nonprofit private colleges 6 years after enrolling (Ortagus and Hughes 2021).

3 Methods

In the next two sections, we use the Board of Governors of the Federal Reserve's (2021) Survey of Consumer Finances (SCF) 2019 dataset of American households. The SCF is a triennial survey of roughly 6000 households and contains detailed financial data on each household. We use the SCF to study student loan debt stratified by race and whether they are first-generation college students. We also stratify our data based on college-degree completion, since there are many people with student loan debt who never graduated. We exclude anyone who is currently enrolled in college or graduate school. Our data in this paper is constrained to people between 23 and 50 years old to avoid capturing people who are older and more likely to have paid off their student loans. Our purpose is to identify significant differences among student loan borrowers based on their race and whether they were first-generation college students. Unfortunately, we cannot isolate households geographically. It is also not possible to identify where people went to college (e.g., for-profit, nonprofit, public, or private).

SCF data use the category of first-generation, and we acknowledge there is a tradeoff and limitation in doing so. Stratification economics often disaggregates the first-generation category, unearthing dissimilar intergroup assimilation patterns. For example, the lateral mobility and intergenerational drag hypotheses anticipate persistent wealth patterns among migrant groups due to their skill and wealth differences upon arrival in America, and scholars have shown evidence that indeed initial advantages and disadvantages do persist and are passed on to future generations causing intergroup wealth stratification (see Darity et al. 2001; Darity 2005). Our data, however, limits our ability to study first-generation students at this level of detail.

3.1 Outstanding student loan debt among Americans

Most aggregate student loan debt figures (including ours) include both student loan debts for college and graduate school at private, public, and for-profit colleges and universities.[1] In fact, roughly half of the estimated US $1.7 trillion in outstanding student loan debt in the USA is for graduate education (Federal Reserve Bank of New York 2021). For example, the average debt of all medical school graduates (both borrowers and non-borrowers) in 2019 was US $201,490, and law school

[1] For-profit colleges are also calculated into these figures even though extensive studies find that student loan debt among for-profit college students is much higher than nonprofit (public and private) college students; graduation rates of for-profit colleges are far below nonprofit colleges; and the expected returns from for-profit college degrees may not be as valuable (especially if the college is not accredited) (US Senate 2012).

graduates owed on average US $145,550 (Lane 2021). So, it is important to distinguish, when possible, the difference between high student loan debts for a college degree versus a graduate or professional degree.

Combining all debt, the Federal Reserve Bank of New York's Consumer Credit Panel from 2017 (the latest data available as of late 2021) which includes over 44 million Americans shows that of all people with student loans, 5.8% had student loan debt balances of US $100,000 or more. Again, many of these people have medical school, law school, and dental school debts in addition to any undergraduate debt they accumulated. Also, many of these professional (and graduate) degrees have a high expected value of future income, which is why default rates for these loans are exceptionally low. Going across the distribution, 11.8% of borrowers had between US $50,000 and US $100,000 in student loan debt, and 82.4% had between US $1 and uS $50,000 in student loan debt. Perhaps most interesting, of people with student loan debt, 63.2% had less than US $25,000 and 35.7% had less than US $10,000. Over 10 years with a 5% interest rate, the monthly cost is US $265, which, for many people, is manageable.

These costs are deceiving, however, because they do not consider penalties, fees or other costs associated with the loan, which predominantly affect borrowers that do not have access to family financial transfers via intergenerational wealth. This is one reason why, "[…] the typical Black student who started college in the 2003–04 academic year, and took on debt to pay for it, owed more than they originally borrowed twelve years after graduating. By comparison, the typical white student had paid off about one-third of their original balance. Failure to pay down the principal takes a toll: Black students earning an undergraduate degree are five times more likely to default than their white student peers (21% versus 4%)" (Beyer 2021). An example of the effect of family financial transfers is that "[…] 64 percent of white households reported that they had helped pay for their children's education, contributing on average close to $73,000 [….] and 34 percent [of Black heads of households] reported they helped pay for their children's education. These parents also contributed less—just over $16,000 on average" (Brown 2021, 113).

3.2 College degree wage premium stratified by race

It is a standard belief today that a college degree is a minimum requirement to achieve a middle-class lifestyle. As we look at the data, however, the wage and wealth premium from a college degree is not evenly distributed. Figure 1 below represents median incomes of heads of households in three racial categories that have at least a college degree; thus, if the wage premium from a college degree eliminated income disparity, then, these median incomes would show small variations if any. The story in Fig. 1, however, is that Black-headed households (non-Hispanic) with at least a college degree show significantly lower median incomes compared to white (non-Hispanic)-headed households and other races[2] in most years from 1992 to 2019 (see Williams 2017).

[2] Other races include: Hispanic or Latino, Asian, American Indian or Alaska Native, Hawaiian Native or other Pacific Islander, or another race (Board of Governors 2021).

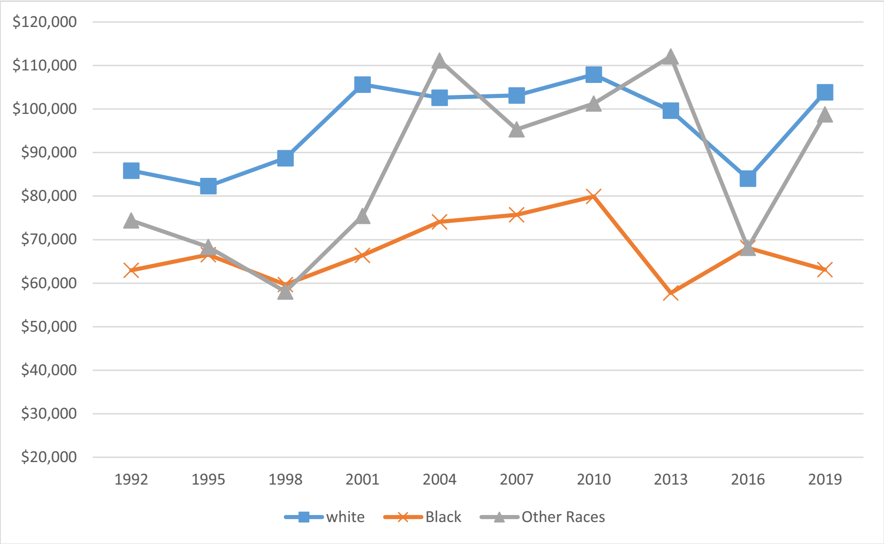

Fig. 1 Median household incomes among college graduates in real 2019 dollars based on head of household race, 1992–2019. Source: authors' calculations using Federal Reserve's Survey of Consumer Finances weighted data (Board of Governors 2021)

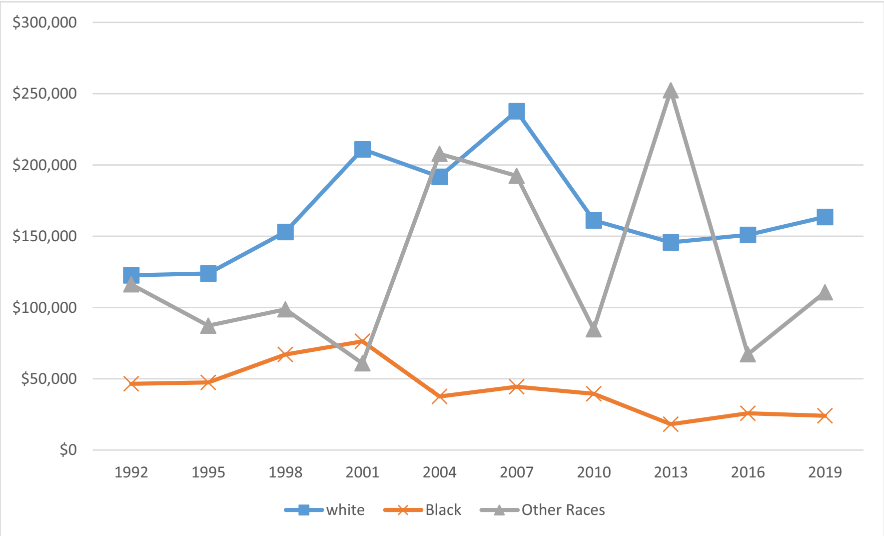

Fig. 2 Median household wealth among college graduates in real 2019 dollars based on head of household race, 1992–2019. Source: authors' calculations using Federal Reserve's Survey of Consumer Finances weighted data (Board of Governors 2021)

Table 1 Median income and median wealth for people with at least a college degree for first-generation college graduates and not-first-generation college graduates, 2019

	Median income		Median wealth	
	First-generation	Not-first-generation	First-generation	Not-first-generation
White Graduates	$75,341	$114,029	$86,000	$199,080
Black Graduates	$55,997	$74,323	$13,700	$31,610
Other Race(s)	$66,178	$105,884	$83,050	$133,700
Everyone	$68,214	$106,902	$70,100	$

authors' calculations using Federal Reserve's Survey of Consumer Finances weighted data (Board of Governors 2021)

Figure 2 below shows the wealth disparity that exists among three race categories who all have at least a college degree from 1992 to 2019. Most troubling is the decline in household wealth among Black households, which already had low-wealth. Numerous studies have similarly found the existence of a severe and harmful racial wealth gap (see Hamilton and Darity 2017; Stewart 2010; Williams 2017). It might be conventional to think that a college degree will reduce this wealth gap, but this argument is not supported in the empirical findings in this paper or elsewhere (see Brown 2021; Hamilton and Darity 2017). First, as shown in Fig. 2, even among people with college degrees, Black students (and in many years, other race(s)) have much less wealth and the trend is downward. Second, the debt that students accumulate to obtain a degree is often expensive (due to interest rates, fees, etc.), which reduces the ability to build wealth. Less advantaged students with debt do not have the safety net of intergenerational wealth to help them if they run into a financial difficulty (e.g., unemployment or illness) or, for example, to help with a downpayment on a house. A college degree does not, in this data, solve the wealth disparity problem and in all likelihood makes it worse, which might explain the downward trend.

The income and wealth disparities even exist when we look at people with graduate degrees. We lack the data to show the long trend, but in 2019, median income among white graduate degree holders was US $142,537, among Black graduate degree holders US $98,757, and other race(s) US $152,718. Black graduate degree holders' median incomes were 56.5% higher than those with an undergraduate degree, but white graduate degree holders had median incomes 44.3% higher than Black graduate degree holders. So, even graduate degrees do not produce equal wage premiums. In fact, median incomes of college-educated white students are still higher (by 5.2%) than the median incomes of Black students who have graduate degrees. We see the same disturbing disparity for wealth, where Black graduate degree earners have a median wealth of uS $67,400; white graduate degree earners have a median wealth of US $271,000, and other race(s) have a median wealth of US $229,200.

Table 2 Comparing people with/without a college degree who do/do not have student loans

	College degree +		No college degree	
	Student loans	No student loans	Student loans	No student loans
Student loans	$51,896	–	$25,321	–
Interest rate student loans	5.6%	–	5.8%	–
Student loans delinquent	19.7%	–	31.8%	–
Black students	20.0%**	5.8%**	21.8%	19.3%
White	68.6%	70.8%	62.0%*	53.1%*
Other race(s)	11.4%**	23.4%**	16.2%**	27.6%**
Income (median)	$81,449**	$115,047**	$61,087*	$45,815*
First-generation college student	31.0%**	23.8%**	57.3%**	71.0%**
Credit card debt	$4,115**	$2,710**	$3,280**	$1,986**
Vehicle debt	$9,396	$7,240	$9,916**	$6,738**
Debt-to-income	41.4%**	33.7%**	45.1%**	31.3%**
Own a home	56.2%**	70.0%**	48.7%	47.0%
Percent with at least one kid	46.5%**	57.1%**	68.3%**	60.4%**
Married	60.2%*	64.7%*	67.0%**	55.9%**
Age	35.2**	38.6**	35.8**	37.4**
Sex (%male)	75.4%**	81.2%**	73.9%	76.9%
N	384	615	371	957

authors' calculations using the Survey of Consumer Finances weighted data (Board of Governors 2021). One-tailed *t*-tests *5% significance level, **1% significance level

3.3 College degree wage premium stratified by first-generation status and race

We see a similar story among first-generation people who have at least a college degree. We do not have a long time series of data, so Table 1 only highlights median figures from the 2019 Survey of Consumer Finances (Board of Governors of the Federal Reserve, 2021).

Table 1 shows significant differences in median income and wealth between people who are classified as first-generation college graduates and those classified as not-first-generation college graduates. Among all first-generation undergraduates, 37% are classified as white students, 33% as Hispanic students, 19% as Black students, and 8% as Asian-American students (Postsecondary National Policy Institute 2021). Across all races, we find median incomes among not-first-generation college graduates is 56.7% higher than first-generation graduates, and their wealth is 156% higher. These aggregate figures hide the racial components that become clear when the data is stratified. We see that median income among White first-generation college graduates is 34.5% higher than Black first-generation college graduates and 13.8% higher than other race(s). Median income of White not-first-generation college graduates is 53.4% higher than Black not-first-generation college graduates and 7.7% higher than other race(s). Wealth shows even larger disparities where White not-first-generation college graduates have 528% higher median wealth than Black not-first-generation college graduates and is 3.6% higher than other race(s). White

Table 3 Comparing people with student loan debt across three race categories

	Student loan debtors		
	White borrowers	Black borrowers	Other race(s)
Student loans	$40,090	$41,500	$29,182
Interest rate student loans	5.6%	6.0%	5.6%
Student loans delinquent	19.7%**	38.1%**	34.7%
College degree (or more)	53.6%*	49.0%*	42.1%
Post-college degree	24.2%*	18.5%*	17.4%
Income (median)	$78,395**	$52,942**	$61,087
Vehicle debt	$10,599**	$6,556**	$9,842
Credit card debt	$3,787**	$2,613**	$4,990
Debt-to-income	46.6%**	31.6%**	45.2%
First-generation college student	39.4%**	50.5%**	54.9%
Own a home	58.9%**	38.1%**	44.1%
Married	72.1%**	36.4%**	64.0%
Age	35.7	35.2	34.7
Sex (%male)	81.7%**	55.5%**	70.3%
N	488	157	110

authors' calculations using the Survey of Consumer Finances weighted data (Board of Governors 2021). One-tailed *t*-tests *5% significance level, **1% significance level

not-first-generation college graduates have 530% higher median wealth than Black not-first-generation college graduates and is 48.9% higher than other race(s). Lastly, we see that White first-generation have higher incomes and especially higher levels of wealth compared to not-first-generation Black college graduates.

3.4 Summary of student loan stratification statistics

Table 2 below compares those with at least a 4-year college degree and those without a college degree, and further stratifies the data based on whether they have student loans or not. We ran one-tailed *t*-tests comparing those with student loans to those without student loans in two categories—those with at least a college degree and those without a college degree.

Looking at Table 2, we see some significant differences between people with at least a college degree that have student loans and those who have student loans but do not have a degree. Student loan balances are twice as high among student loan borrowers who have at least a college degree compared to those who do not have a degree. Only 5.8% of Black college graduates have no student loan debt compared to 70.8% for Whites and 23.4% for other race(s). Median income is 41.3% higher among those who have a college degree and do not have student loans (US $115,047) compared to those with student loans (US $81,449). This group was also much less likely to include first-generation college students (23.8%). Even though student loan debt amounts are much higher among those with a college degree, their delinquency rate is much lower (19.7% vs. 31.8%). The wage premium from completing a degree explains some of this effect, but as we saw in Fig. 1 above, the wage premium is much less for Black students. It is also likely the result of intergenerational wealth and the fact that students who borrow but have families that can provide a financial safety net are much less likely to default (also see Hamilton and Darity 2017).

Table 3 below stratifies student loan borrowers, regardless of whether they have a degree, by race. The other race(s) category conflates all other races identified in the SCF data because sample sizes for each of the other races were too small. We ran one-tailed *t*-tests comparing white student loan debtors to Black student loan debtors.

Table 3 shows some significant differences between these three race groups. The average amount of student loan debt is similar between white and Black student loan borrowers, but lower for all other races. Delinquent student loans are highest among Black borrowers (38.1%) and lowest for white borrowers (19.7%). However, college completion rates are highest for whites compared to the other two groups. Interest rates are not significantly different between white and Black borrowers, which is more likely due to interest rates largely set by the federal government. There is a more significant difference among groups for post-college degrees. Black student loan borrowers have less median debt and therefore lower debt-to-income ratios, which may be a result of less access to credit markets compared to other groups (Ards et al. 2015). Median incomes among white earners are 48.1% higher than black earners and 28.3% higher than other race(s). As shown in Fig. 1 above, this income disparity is not due to higher college completion rates but is perhaps a result of labor market discrimination and/or occupational segregation (see Darity et al. 2015; Vijaya et al. 2015). In addition, home ownership is 54.6% higher among white borrowers compared to black borrowers, and 33.6% higher compared to other race(s), which has a tremendous effect on wealth creation. Lower homeownership among Black borrowers is also a result of much less intergenerational wealth that helps young adults afford a down payment on a home (see Beyer 2021; Brown 2021; Williams 2017). Additionally, student loans redirect income away from wealth-producing undertakings (e.g., homeownership, starting a business, and retirement investing). Thus, any wage premium enjoyed by student loan borrowers is captured as surplus profit by student loan servicers. Black student loan borrowers who do not gain wage premiums from their college degrees will also find it much more difficult to generate wealth.

Table 4 focuses on another important debt stratification, which is first-generation college students compared to those who have at least one parent that graduated from college. Again, this sample is filtered for people aged 23–50 who have student loan debt, but not necessarily a degree.

Table 4 above shows many significant differences between first-generation student loan borrowers and those who are not first-generation borrowers. First-generation student loan borrowers were much less likely to have finished their college degree (36.1%) or post-college degree (10.5%) compared to not-first-generation debtors with a college degree (62.8%) or post-college degree (31.1%). First-generation borrowers also had around US $15,000 less in student loans, on average; however, they were 58.5% more likely to be delinquent on their student loans, which is

Table 4 Comparing student loan debtors based on whether they are first-generation college students

	Student loan debtors	
	First-generation	Not-first-generation
Student loans	$30,997**	$45,055**
Black students	24.1%**	18.4%**
White students	58.8%**	70.6%**
Other race(s)	17.1%**	11.0%**
Interest rate student loans	5.0%	5.38%
Student loans delinquent	32.3%**	20.4%**
College degree (or more)	36.1%**	62.8%**
Post-college degree	10.5%**	31.1%**
Income (median)	$60,068**	$105,410**
Vehicle debt	$9,208	$9,995
Credit card debt	$4,126*	$3,379*
Debt-to-income	41.4%*	44.7%*
Own a home	46.4%**	57.4%**
Married	56.4%**	69.1%**
Age	35.3	35.6
Percent with at least one kid	60.3%*	54.7%*
Sex (%male)	66.7%**	80.9%**
‘*N*	328	427

authors’ calculations using the Survey of Consumer Finances weighted data (Board of Governors 2021). One-tailed *t*-tests *5% significance level, **1% significance level

likely a result of the lower college completion rates. First-generation student loan borrowers were also 42.5% less likely to have at least a college degree and 66.2% less likely to have a post-college graduate degree. This data may speak to the financial costs associated with a college degree and how many first-generation students rely on loans but still find themselves unable to afford finishing their degree. First-generation college students had a median income 43% lower than not-first generation student loan borrowers. First-generation borrowers are also less likely to own a home and be married. Also, we find that first-generation borrowers are less likely to be white borrowers compared to those who are not first-generation.

Table 5 compares student loan debtors who are delinquent (i.e., not currently paying) on their student loans and people who are not delinquent paying their student loans.

Table 5 above shows some differences, as expected, between student loan borrowers who are delinquent and those who are not. Curiously, the amount of student loan debt owed is not significantly different between the two groups, which may be the result of the large income disparity between delinquent debtors (US $45,815) and not-delinquent debtors (US $81,449). Many more delinquent borrowers are first-generation college students compared to those who are not delinquent. Non-delinquent borrowers are more likely to have at least a college degree. Income differences are large between these two groups with non-delinquent borrowers earning a

Table 5 Comparing student loan debtors who are delinquent on payments and those who are not

	Student loan debtors	
	Delinquent	**Not delinquent**
Student loans	$40,126	$38,466
Interest rate student loans	6.0%	5.56%
First-generation college student	56.0%**	39.9%**
Black students	30.9%**	17.4%**
White students	50.1%**	70.6%**
Other race(s)	19%**	12.0%**
College degree (or more)	39.0%**	55.1%**
Post-college degree	14.1%**	24.8%**
Income (median)	$45,815**	$81,449**
Vehicle debt	$6,448**	$10,742**
Credit card debt	$2,944*	$4,007*
Debt-to-income	27.4%**	48.6%**
Own a home	33.5%**	59.0%**
Married	48.2%*	56.4%*
Age	36.9	35.0
Percent with at least one kid	59.7%	56.4%
Sex (%male)	61.7%	79.2%
N	210	546

Authors' calculations using the survey of Consumer Finances weighted data (Board of Governors 2021). One-tailed *t*-tests *5% significance level, **1% significance level

median salary that is 77.8% higher than delinquent borrowers. Delinquent borrowers are much less likely to own a home and are much more likely to be in a non-white racial group. Non-delinquent borrowers, however, have more vehicle debt and credit card debt than delinquent borrowers, which may reflect that they have more income to sustain more borrowing and/or they have better credit scores to access more credit and perhaps credit with better terms (i.e., lower interest rates).

4 Regression models

4.1 Binary logistic regression models

To test the stratification effects of having student loans across race and first-generation status, we developed two binary logistic regressions. The first uses student loans as a binary dependent variable (1 if they have student loans, 0 otherwise). The second logistic regression uses student loan debt delinquency as the binary dependent variable (1 if delinquent on student loans, 0 otherwise). Delinquency is determined in the Survey of Consumer Finances by whether the person is currently making payments on an existing student loan debt or not. Like all our earlier statistics, our samples are constrained to people between the ages of 23 and

Table 6 Logistic regression results for (a) having student loans and (b) delinquent paying student loans

	Has student loans	Delinquent on student loans
Financial assets (0–25th percentile)	3.452***	1.174***
Finance assets (25th–50th percentile)	3.914***	0.679***
Finance assets (50th–75th percentile)	2.739***	0.609***
Student loan debt balance	–	1.066***
Black students	1.452***	2.257***
Other race(s)	0.481***	2.234***
First-generation	0.803***	1.323***
College degree	2.562***	0.694***
Post-college degree	2.518***	0.598***
Age	0.967***	1.069***
Log of income	1.239***	0.349***
Job	1.145***	0.554***
Kids	1.005***	1.098***
Married	0.521***	0.925***
Sex (male)	0.533***	0.932***
N	2,308	752

authors' calculations using the Federal Reserve's Survey of Consumer Finances weighted data (Board of Governors 2021). ***significant at the 1% level

50 years old. We include dummy variables for financial assets broken into four percentile groups (0–25th percentile, 25th–50th percentile, 50th–75th percentile and 75th percentile and above), where the top quartile is removed as the base variable. Next, we include dummy variables for whether someone is a first-generation college student (1 if yes, 0 if not). We also look at whether the people attained a college degree or a post-college degree (1 if yes, 0 if no). We use log of income to capture any income-effects. Race is broken into three dummy variables with white borrowers serving as the base variable since it was the largest group. We also included a dummy variable for whether someone has at least one child (kids) or whether they are currently employed (job). In the second model (delinquent on student loans), we include a variable that captures the balance of the student loan debt (in tens of thousands of dollars). Then, we included additional control variables (δ) such as whether they are married, their age, and their sex (male is 1). Our primary specification follows:

$$\begin{aligned} \textit{Has Student Loans (Delinequent on Student Loans)} = \alpha_0 + \beta_1 \sum_{d=1}^{4} \textit{Finance} + \beta_2 \textit{Student Loans} \\ + \beta_3 \textit{FirstGen} + \beta_4 \textit{College Degree} + \beta_5 \textit{PostCollege} \\ + \beta_6 \textit{LogIncome} + \beta_7 \textit{Race} + \beta_8 \textit{Job} + \beta_9 \textit{Kids} + \delta_{xi} + \varepsilon_i \end{aligned}$$

where Has Student Loans is the log odds ratio: $\ln \left[\frac{p(\textit{has student loans})}{1-p(\textit{has student loans})} \right]$

Both logistic models in Table 6 were statistically significant overall using the Hosmer–Lemeshow test. Perhaps the most interesting (and troubling) finding in our analysis is that Black students are both more likely to have student loan debt compared to white students (45.2%—which we saw in Table 3), and they are 125.7% more likely to fall behind on their payments for student loans compared to white borrowers, which may be a result of several factors such as higher likelihood to attend for-profit colleges (Cottom 2017), borrowing more when attending college and graduate school (Brown 2021), intergenerational wealth effects (Addo and Darity 2020; Williams 2017), and/or labor market discrimination that lowers incomes (Darity et al. 2015; Vijaya et al. 2015). Black versus white student debt and the delinquency differentials could also result from lower college completion rates, though as we saw in Fig. 1 above the wage premium is not evenly distributed. More likely, delinquency is a result of the financial burden from student loans combined with a lack of intergenerational wealth among Black households (Addo and Darity 2020; Davis 2019; Stewart 2010). These effects are amplified when a Black student does not complete a degree and has debt to repay. The lack of wealth and income support for Black students likely creates a negative feedback loop where they have less money, which reduces their likelihood of completing a degree that in turn leads to debt and greater financial strains—especially if they do not have a degree, which makes it more unlikely they will ever complete one. This effect is even more pronounced at the graduate school level (see Posselt and Grodsky 2017).

4.2 OLS regression model

To test the data another way, we ran an OLS model with student loan debt measured in tens of thousands of dollars as the dependent variable (SLD).

$$\begin{aligned} SLD =& \alpha_0 + \beta_1 \sum_{d=1}^{4} Finance + \beta_2 SLdelinquent + \beta_3 FirstGen \\ &+ \beta_4 CollegeDegree + \beta_5 PostCollege + \beta_6 LogIncome + \beta_7 Job \\ &+ \beta_8 Race + \beta_9 Kids + \delta_{xi} + \varepsilon_i \end{aligned}$$

The results from the OLS regression are in Table 7 below.

Table 7 confirms much of what we found in the logistic regressions. However, there is some added information from the OLS results. First, people who fall delinquent on their student loans owe an average of US $8,310 more on their loans compared to those who are not delinquent (significant at 5% level). People with a college degree owe US $8,510 more than those who do not, which we saw in Table 2. People with post-college degrees owe $46,950 more than those who do not have post-college degrees. This result is likely from high priced graduate degrees such as medical school, law school, and dental school where average debt balances often exceed US $100,000. Of the two race categories, Black borrowers is significant showing that they owe an average of US $6,740 more on student loans than whites, and other race(s) is also significant showing they owe US $7,000 less than white borrowers. Even controlling for a variety of factors, Black borrowers in this sample showed significantly worse outcomes.

Table 7 OLS regression with student loan debt (in tens of thousands of dollars) as the dependent variable

	Student loan debt (tens of thousands of dollars)
Intercept	6.389
Student loan delinquent	0.831**
Black borrowers	0.674*
Other race(s)	– 0.700*
First-generation	– 0.266
College degree	0.851**
Post-college degree	4.695***
Age	– 0.019
Log of income	– 0.027
Job	– 0.073
Kids	– 0.914***
Married	– 1.584***
Sex (male)	– 0.652
F-test	17.90***
N	752

authors' calculations using the Federal Reserve's Survey of Consumer Finances weighted data (Board of Governors 2021). Independent variable significant at *10%, **5%, ***1%

5 Public policy prescriptions

The student loan system ensnares many poor and especially Black and first-generation students into debt servitude. Students deserve a high-quality college education but are asked to pay exorbitant financial costs that reduce their standard-of-living, future wealth creation, and even the ability to complete their college degrees or post-college degrees. We found in our empirical analysis that many Black and first-generation college graduates do not gain the same (or any) wage premium as White college graduates. The same findings show that the expansion of college access through student loans has not reduced the racial wealth gap and is likely exacerbating it. Our analysis finds the differences in income and wealth are large and statistically significant across race and class, both made worse by wealth draining student loan debt repayment and higher debt delinquency rates among Black borrowers. As such, the student loan debt system is deeply flawed and worsens racial and class-based income and wealth inequalities (Figs. 1 and 2).

Consequently, solving student loan debt disparities is challenging because the system is designed to maintain the social hierarchy and perpetuate privileged classes. For example, almost half of admissions to Ivy League colleges are for children of alumni (i.e., legacies). A small percentage of Black and first-generation college students attend elite colleges—which have the most financial resources resulting in higher graduation rates and better outcomes for graduates (e.g., better jobs, higher incomes, better graduate school admissions) (Brown 2021, 102–3). Even still, Brown (2021) shows that white students who go to lower-ranked schools have similar employment outcomes as Blacks that go to elite schools. And it appears not to influence lifetime earnings. Rich families rarely enter the student loan system, and many middle-class White families can manage student loan debt due to family income and intergenerational wealth. Public policies designed to solve the problems associated with student loans must address these realities and acknowledge the racial and class-based discrimination that exists. Our policies revolve around three ideas (1) eliminating the existing student loan debt burden for Black, first-generation, and poor students; (2) improve college completion rates for wealth-poor students by establishing a small endowment for each wealth-poor child at birth; and (3) ensure future college students are not subjected to income and wealth disparities that reduce their future incomes and wealth.

5.1 Dismantle the student debt system

The federal government in 2021 eliminated US $11.5 billion of student loan debt for 600,000 borrowers who either suffer from a permanent disability or who were defrauded by for-profit colleges (Minsky 2019). Some officials recommend discharging much more student loan debt (Fullwiler et al. 2018; Warren and Schumer 2020). If debt forgiveness is not an option, Congress at minimum could pass laws that offer interest free loans to student borrowers and eliminate excessive default penalties that can equal up to 25% of the outstanding student loan balance (Minsky 2019). To further help future borrowers, we also support state legislatures returning to funding levels for higher education observed in the 1970s.

Jimenez and Glater (2020) argue that the student debt crisis is now a "civil rights issue" that requires a substantial public reinvestment in higher education. We believe the empirical findings in this paper support this view by showing significant disparities among student loan borrowers based on race and class. The cost to pay for college for all students at public colleges today would be, roughly, 10% of the US military's annual budget (US Department of Defense 2021). In addition, the cost would be much less if, for example, students from wealthy families paid more.

One problem with student loans is that colleges can increase their costs if students can borrow more money, which creates a vicious cycle that makes obtaining a degree too expensive for poorer students. Even if these students graduate, their debt burden is significant. The easiest way to do this is to increase Pell grants and ensure more federal funding is targeted to Black and first-generation students using both income and wealth as criteria for eligibility (Brown 2021).

5.2 Baby bonds

We find that Black and first-generation students are at a significant financial disadvantage and student loan debt, rather than equalizing opportunity, exacerbates the problem. Darity and Hamilton (2010) recommend establishing federal trust funds (i.e., baby bonds) for low-wealth newborns to access later in life for higher education, home purchase, or starting a business (Darity and Hamilton 2012). This wealth-based policy will help reduce the effects of intergenerational wealth disparity and improve college completion rates for wealth-poor students. Naomi Zewde's (2020) study found that issuing "baby bonds" to every American newborn and sustaining them through their college-age years would substantially reduce the racial wealth gap (Zewde 2020). This policy can complement a publicly funded college model because tuition is only one aspect of college costs. Other costs include room and board, books, and transportation. These additional costs are expensive, and baby bonds will give many low-wealth students a chance at the same college experiences as wealthier students. For students who graduate, the opportunity to begin building wealth and pursue further education without the burden of debt will improve the financial opportunities for Black and first-generation college graduates. Darity and Hamilton (2010) also show that the cost of this program is small relative to the social benefits. Besides the significant social benefits, baby bonds will lead to far fewer delinquencies and improve college completion rates—both of which will benefit local, state, and federal budgets. Though far more work is needed to ensure that Black and first-generation college graduates receive the same wage premiums and labor market outcomes as white graduates.

5.3 Ban for-profit colleges from receiving federal funding

For-profit colleges have much higher tuition costs, much higher debt and default rates, and much lower post-graduation earnings than traditional colleges (United States Senate 2012). These outcomes are particularly harmful to Black and financially disadvantaged students. While initially banned from receiving federal funds, Congress in the Higher Education Act of 1972 expanded the student loan market by allowing for-profit colleges to receive federal funding to expand college access to low-income students (Cottom 2017). As mentioned in Sect. 3, the Student Borrower Protection Center (SBPC) found that for-profit colleges engage in many predatory tactics employed by companies such as payday lenders (SBPC 2021). Additionally, for-profit students make up almost half of all student debt defaults and 67% of Black students attending for-profit colleges are now defaulting on their loans (SBPC 2021). While few students who attend for-profit colleges graduate, almost all of them carry student loan debt.

While some vocational schools and other for-profits may provide professional benefits for students, most of the for-profit colleges offering baccalaureate degrees are often not good substitutes for nonprofit public and private colleges (see Cottom 2017). The federal government should stop funding poor-performing and predatory for-profit colleges and redirect this money to a publicly funded college model, baby bonds, Pell grants, and other sources that provide the greatest benefits for Black and first-generation students.

5.4 Reform bankruptcy laws

Bankruptcy provides people who are unable to manage their debts an opportunity to regain financial stability, and such thinking previously covered student loans. Yet, the Budgetary Reform Act of 1978 and several other subsequent bankruptcy code reforms uniquely barred people from including their student loans in bankruptcy (Lewis 2019). Congress at the time viewed bankruptcy as a threat to the student loan system, even though only 1% of borrowers were using bankruptcy to discharge student loans (Pardo and Lacey 2009). There are now up to 250,000 annual bankruptcy applications where debtors are not permitted to discharge their student debt along with other forms of debt (Jimenez and Glater 2020).

The fact that student loans are not dischargeable in bankruptcy speaks to how the government views people who rely on student loans. While student loan forgiveness combined with publicly funded college and baby bonds would improve racial and class disparities for college students, there still may exist the need for student loan debt forgiveness. And if no other student loan public policy is possible, at minimum, bankruptcy laws must be amended to allow student borrowers to discharge student loans.

6 Conclusion

The current student loan system preserves socioeconomic hierarchies and will continue to exclude Black and first-generation students disproportionately from the income and wealth benefits of higher education absent major reforms. Our study found that student debt loan policies are disproportionately harming Black and first-generation students and are widening rather than narrowing the racial wealth gap. Black and first-generation college graduates without access to intergenerational wealth must take on more student loan debt and experience greater difficulty paying it back due in part to worse labor market outcomes, and lower wage and wealth-generating premiums from their degrees. Even graduate and professional degrees do not eliminate the lower wage and wealth benefits of a degree among Black graduates. Outcomes are even worse for the many student loan borrowers who do not complete their degrees.

Allowing private financial firms to manage the student loan market has driven the student debt crisis because they seek to maximize profits rather than promote equity. They use predatory loan practices and draconian repayment plans that constrain student borrowers from finishing their degrees, building wealth, and seeking post-college degrees. Effective congressional lobbying since the late 1970s has stymied meaningful regulatory and consumer protections common in other consumer markets that could ensure more equity between lenders and borrowers. In this study, we recommended the issuance of baby bonds for all newborns to access during their college years and beyond, a substantial public re-investment in higher education from the federal and state governments in combination with targeted debt forgiveness, removing rapacious for-profit colleges from the student loan system, and allowing debt holders to use bankruptcy to discharge unmanageable student debt.

No one solution exists for the student loan debt problem, but these regulatory changes and policy prescriptions each address different weaknesses within the system that perpetuate the income and wealth inequalities that currently exist.

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