Gender Stratification, Racial Disparities, and Student Debt Trajectories in Young Adulthood

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Abstract

Student loan debt has become a ubiquitous part of the college process for many pursuing higher education. Post-secondary educational outcomes are stratified by gender, with women attending college and completing their degrees at higher rates. Differential financial investments in schooling and gender discrimination in the labor market can increase the financial risks associated with the pursuit of higher education while lessening the financial rewards for women. Using data from the NLSY97, we find that gender debt disparities widen throughout young adulthood. Young adult men pay down their debt faster than young adult women. These patterns hold when disaggregated by race and ethnicity, with the widest gap between Black women and Black men. Our findings suggest that educational debt disparities reflect broader societal inequalities that inhibit wealth-building among women and racialized minority groups in the U.S.

Keywords: Student debt, young adulthood, gender, race/ethnicity, transition to adulthood

Introduction

Young adult women enroll in higher education to a greater extent than young adult men and complete their degrees at higher percentages. Compared to the previous generation when men, mostly white, comprised the majority of the higher education population, as of 2014, 56% of women enrolled in college compared to 44% of men, and 63% of women obtained their degrees compared to 57% of men who started college in 2011 (National Center for Education Statistics, 2018, 2018). This demographic shift in postsecondary education also means that women are more likely to experience contemporary trends associated with higher education. One defining shift has been the increasing privatization of post-secondary education and the debt students and their families undertake to pursue and complete their studies. In a 2017 report, the American Association of University Women found that greater percentage of women attending college relied on student loans to finance their studies; a smaller percentage of women received grant-based financial aid and scholarships compared to men (Miller, 2017).

The societal importance associated with obtaining a college degree combined with an increasing share of students and their families' inability to cover all costs associated with attending college and therefore taking on loans to do so underscores the centrality of student debt within broader discussions of social inequality. Student debt is associated with college completion and later life outcomes (Jackson & Reynolds, 2013), including career decisions, fertility, and marital formation, with distinctively gendered results (Addo, 2014; Dwyer et al., 2012; Nau et al., 2015). For the present study, we aim to highlight one distinct financial consequence, student debt, that develops within broader institutions associated with higher education in which sexism, racism, and classism persist. By doing so, we show how social

identities produce costlier outcomes within contemporary institutional structures associated with social and economic mobility.

An examination of student debt necessitates discussing race and class in higher education. The student debt environment is racialized. Rates of borrowing and average debt among Black and Latinx student borrowers exceed white and Asian borrowers (Espinosa et al., 2019), and the proportion of Black households that carry student debt outpaced white households between 1989 and 2013 (Seamster & Charron-Chénier, 2017). Black borrowers are also more likely to struggle with repayment, with higher rates of default and delinquency during repayment (Scott-Clayton, 2018). The average and median student debt burden is also largest among Black women whose rates of college attendance and completion have continued to outpace Black men for decades, but also continue to face gender and racial wage discrimination in the labor market (AAUW, 2017). Latinx women also accumulated more debt than Latinx men (AAUW, 2017). And yet, the extent to which differences in post-secondary schooling and labor market characteristics explain debt disparities by gender within and across racialized groups is still not fully understood. Young adults with college-educated parents, and those from the highest income bracket leave school with considerably less debt than their counterparts (Houle 2014); whereas parental wealth does not reduce student loan debt accumulation for Black students to the same extent as white students (Addo, Houle, & Simon 2016). Race, ethnicity, and socioeconomic status, in addition to one's gender identity, all contribute to a young adult's higher education financial profile.

In the current study, young adults who ever enrolled in post-secondary schooling are followed from their initial entry through degree completion or dropping out to estimate the student debt trajectories of young adult women and men throughout early and young adulthood.

Our analysis accounts for gender differences in young adults' economic and social roles, post-secondary institutional factors, and family background characteristics; we also explore these relationships within race and ethnicity. We find that a substantial proportion of both young adult women (46.6%) and men (40%) held student debt. Gender disparities in student debt grow over time, with young adult men able to pay down their debt faster. Both Black women and Black men have more debt at baseline, with their debt disparities growing over time relative to their white female and white male counterparts. Debt differentials between white women and white men are large and grow over time, and not fully explained by young adult, postsecondary, or background characteristics.

Background

Our study of gender differences in student debt trajectories draws upon literature that provides a critical understanding of the social context that creates divergent economic outcomes for women and girls compared to men and boys. Gendered processes of educational debt accumulation occur within the broader context of family finances; in particular, the context in which parents differentially invest in their children by gender (Jacobs, 1996). Children with parents who have higher incomes, higher net worth, and college savings accounts are more likely to acquire less debt, and children from families who provide greater levels of financial and instrumental support for their children's college education accumulate lower levels of student debt (Keane & Wolpin, 2001). Justifications for investing in sons' education more than daughters' educational attainment (Becker, 1981) were predicated on gendered norms that rewarded men in the labor market and at home. This was based on the expectation that sons were going to earn higher wages in the labor market and be the breadwinners. Educational investments

in children across all levels of parental education, a measure of socioeconomic status, have become more gender egalitarian due to decreases in gender discrimination in perceived ability and outcomes (Buchmann & DiPrete, 2006; Freese & Powell, 1999) and increases in female labor force participation. And yet, in a recent cohort of high school students from 2009, the amount of parental savings for college were found to be higher among sons than daughters (Quadlin & Conwell, 2020).

While investments prior to enrolling in higher education have slowly shifted to align more equitably across gender, experiences while enrolled and after leaving or completion also contribute to differential debt accumulation by gender. At the population-level women have surpassed men in enrollment, academic achievement and college completion rates (Dwyer et al., 2012).[1] College graduates leave school with more debt than non-completers, who are more likely to be men (Parker, 2021) and more likely to struggle with debt repayment. More female college graduates hold student debt relative to men (Dwyer et al., 2012). In contrast, preferences for remaining in college and providing financial support to families are also gendered and concentrated among female students, which increases the amount of total debt borrowed (Dwyer, Hodson, and McCloud, 2012).

Male and female borrowers then enter a labor market that undervalues work in fields with an overconcentration of female workers. Occupations that are predominantly female such as teaching, nursing, and care work oftentimes require college degrees or pricey certifications (Dwyer et al., 2012), yet pay lower wages. Women may have a prolonged period of paying off student debt compared to men due this occupational sorting, not to mention experiencing wage

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[1] Using data from the General Social Survey from 1972 to 2002, Buchmann and DiPrete (2006) find that gender disparities in college attainment are primarily driven by the decline in the rate of college attendance by white men whose fathers were not present in the household and who had lower levels of education.

and gender discrimination in the labor market. They get paid lower wages for the same jobs men do, or are unable to gain access to better paying positions (Altonji & Blank, 1999; Barroso & Brown, 2021).

Central for young adults' financial trajectories are the social roles they assume. Marriage rates during young adulthood have declined since the late 1970s, while the age at first marriage for women and men continues to rise (Vespa, 2017). Partners in cohabiting relationships, which is now the modal pathway to coresidential living, are more likely to maintain separate finances and are less likely to pool financial resources associated with debt accumulation, such as credit cards (Addo, 2017; Addo & Zhang, 2020). And despite the presence of two adults, the wealth holdings of cohabiting couples resemble those of single households rather than married households (Addo & Ricketts, 2019). These processes are also gendered. Women with educational debt are less likely to marry directly, and more likely to move in cohabiting relationships or remain single (Addo, 2014). The relationship between increased student debt and a decreased likelihood of marrying is only found among young women and has strengthened over time (Addo et al., 2019). The likelihood of marriage decreased by 2% for every $1000 increase in student debt among women attending college (Bozick and Estacion 2014).

Rather than view race and gender as separate spheres of oppression, the intersectional framework (Collins, 1990; Crenshaw, 1989) examines how racism and sexism together create inequities. In the context of student debt trajectories, these frameworks materialize in several ways. White and Black parents provide greater financial investment to their sons than their daughters. Regardless of levels of academic achievement in high school, parents invest the highest amount of college savings for white boys ($25,000), followed by white girls ($22,000), Black boys ($12,000) and Black girls ($10,000), in part due to socioeconomic advantage or

disadvantage of families of origin (Quadlin & Conwell 2020). The average amount of debt for those who completed college was higher among women compared to men, and highest among Black women, followed by Latinx women, white women, and Asian women (Miller, 2017). Black and Latinx women are more likely to graduate with debt relative to Black and Latinx men (Dwyer et al., 2012). Encountering racism and sexism in the labor market contributes to lower wages (Altonji & Blank, 1999) and higher debt among Black and Latinx women and men compared to white women and men. These processes can lead to greater levels of debt accumulation among Black and Latinx women and difficulty with repayment.

Racial inequalities in parental wealth, parental savings for children's college, types of institutions attended, and racial discrimination in the labor market after college all contribute to racial disparities in student debt burden (Houle and Addo 2018; Addo, Houle, and Simon 2016; Quadlin & Conwell, 2020). Black families have lower levels of wealth compared to white families, decreasing the amount that families can provide towards reducing their children's student debt, and are less likely to have savings towards college for their children (Quadlin & Conwell, 2020). By race and ethnicity, the expected family contribution to undergraduate education was higher among men compared to women, and highest among white and Asian families, followed by Latinx and Black families (Miller, 2017). Black and Latinx female students are also more likely to attend for-profit institutions (Cottom, 2017), and institutions that are underfunded, serve under-resourced populations, and are not able to provide as much financial aid. These all contribute to greater student debt accumulation compared to white students (Addo et al., 2016). Black students borrow at the greatest rates and also accumulate the most debt, followed by white students, Latinx students, and Asian students. These patterns hold independent of completing a college degree (Miller 2017). Intergenerational legacies of racialized wealth

disadvantage also means that young adult Black and Latinx students may also be responsible for providing financial support for their parents in young adulthood, delaying debt repayment and contributing to a greater debt burden.

The current study builds on literature that examines growing disparities in student debt accumulation and repayment (Houle & Addo, 2019), and asks, among young adults who ever attended a post-secondary institution, how do gender disparities in student debt change across young adulthood? What happens to the observed patterns in gender debt trajectories after accounting for family background, post-secondary institutional characteristics, and young adult economic and social roles? Do similar patterns emerge within non-Latinx Black, Latinx, and white young adult populations? And finally, to what extent do racial disparities in student loan debt persist within gender? There is increasing evidence of the consequential impacts of student debt in the lives of young adults. It is therefore equally important to understand for whom higher education is not only more expensive, but for whom may also endure an additional debt burden related to the increasingly risky financial investment that higher education has become.

Given that recent cohorts of young adults have been raised within a social context in which there was a greater share of women in higher education, we hypothesize that there will be no gender differences in baseline student debt accumulation attributed to family background characteristics. We also hypothesize that gender debt disparities are significant and grow across young adulthood, with women holding more debt consistently across the period. We believe these differences are explained in large part by gender inequities in the labor market and young adult social and economic roles. Finally, we believe that Black women and Latinx women will have the highest levels of debt and slowest repayment rates as evidenced by growing debt disparities over time relative to their male counterparts and white women.

Methods

Data

We use data from the 1997 cohort of the National Longitudinal Study of Youth (https://www.bls.gov/nls/nlsy97.htm). The NLSY97 is a nationally representative survey of 8,894 youth who were between the ages of 12 to 17 in 1997. Respondents were followed annually from 1997 to 2011 and interviewed in 2013 and 2015. We also use information from the Integrated Postsecondary Education Data System (IPEDS) Delta Cost Project Database (2012), which provides longitudinal information on characteristics of postsecondary institutions attended by NLSY97 respondents. We restrict our sample to respondents who ever enrolled in postsecondary education. We restructured the data into person-year format, removing any observations before the respondent was first enrolled. After listwise deletion, our final sample consists of 32,219 person-observations for 4,031 respondents, including 2,202 women and 1,829 men.

Measures

Student Debt. Our outcome measure was a logged measure of total student loan debt from all sources including government, friends and family, and private debt. Student loan debt was measured approximately every five years when the respondent was ages 20, 25, 30, and 35. We used linear interpolation to impute debt between survey waves and adjust debt, coded in thousands in dollars, for inflation using the CPI-R-US and report in constant 2015 dollars (Bureau of Labor Statistics 2015).

Gender. The gender variable is equal to one if the respondent self-identifies as female and zero for male.

Race/Ethnicity. The main racial categories are non-Latinx white (reference category), non-Latinx Black, and Latinx, all self-reported. NLSY97 also samples mixed-race individuals, but they were not included in the final analyses because they are less than 1% of the survey and we are unable to determine which racial and ethnic categories the individual identifies as.

Model covariates.

Family background. Family background covariates include whether the youth lived with both biological parents, stepparents, or other family arrangement at age 12, the number of household members under the age of 18, whether the respondent was raised in an urban area, the census region of their birthplace, their parents' income (logged), and a linear-transformed measure of parental net worth during the initial survey wave in 1997.

Post-secondary characteristics. We included several measures of post-secondary characteristics, including educational attainment (some two-year college, two-year college degree, some four-year college, and four-year college degree, the reference category). We also included the respondent's current enrollment status, which included whether they were enrolled in school or not (reference category), the number of years enrolled in post-secondary education, the percentage of years enrolled full-time, the percentage of years enrolled at a private institution, and indicators for whether respondents ever attended a for-profit institution (1=yes) or a Historically Black College or University (HBCU; 1=yes). We also include indicators of college costs, aid, and parental contributions to college. This includes a measure of the aid-to-cost ratio of the institutions attended (the average amount of aid divided by the sticker price), and the total amount of parents' monetary contributions to college reported by the respondent over their postsecondary career (in 2010 dollars).

Young adult characteristics. Socioeconomic status measures in young adulthood were grouped into three categories, including measures related to employment/labor market, financial status, and family structure and relationship factors. Employment status included whether the respondent was employed full-time or not. Occupational status is an indicator variable that equals one if the young adult had an occupation in a STEM field (engineering and related technicians, engineers, architects, and surveyors, health diagnosing and treating practitioners, physical scientists, mathematical/computer scientists) or managerial occupations (executive, managerial occupations, management related occupations, social scientists and related workers, lawyers, judges, and legal support workers, life, physical, and social science technicians). To capture the respondent's financial health, we included measures of the value of all reported financial assets, all unsecured consumer debt, and current homeownership status (1=yes). Like the student loan debt measures, unsecured debt, financial assets, and earnings measures were logged, adjusted for inflation, and standardized to reflect 2015 US dollars. Family and relationship factors included current marital status, whether the respondent reported at least one biological child in the household (a proxy for parental status), and an indicator for co-residence with their parents.

Analytic Strategy

To estimate regression models that address our main research questions we use Hierarchical Linear Growth Curve Models (HLM). The HLM method allows us to determine how trajectories of student debt vary over time as a function of the key independent variables. The HLM estimation consists of two levels. The first level estimates (eq.1) within-person

trajectories of student debt as a linear function of time. The second level captures between-person differences in the intercept and slope of student debt (1a & 1b).

The baseline model estimates student debt (Y_{ti}) as a function of time:

$$Y_{ti} = P_{0i} + P_{1i}TIME_{ti} + E_{ti} \qquad (1)$$

We simultaneously estimated levels of debt at baseline (intercept) and change over time (slope) as a function of gender and model covariates.

$$P_{0i} = B_{00} + B_{01}FEMALE_{0i} + B_{02}COVS_{0i} + E_{0i} \qquad (1a)$$

$$P_{1i} = B_{t0} + B_{t1}FEMALE_{0i} + B_{t2}SLCOVS_{0i} + E_{1i} \qquad (1b)$$

We are also interested in estimating the extent to which gender differences in debt trajectories are explained by (or are a function of) family background characteristics, youth postsecondary experiences, and young adult socioeconomic status. We allow the slope of debt to vary by model covariates (SLCOVS) and examine to what extent these characteristics explained gender differences in debt trajectories (B_{t1}). In addition to running the models on the full sample, we also run them within race and ethnicity groups, within gender, and present and discuss the results accordingly.

Summary Statistics

Within our sample of college-attending young adults, more women reported having debt (47%) compared to men (40%). The average amount of college debt held was $8,657 and was significantly higher among women compared to men – on average, women held $9,448 in debt, while men held $7,697 of debt. When restricted to those carrying non-zero debt, the overall magnitude of outstanding debt increases considerably. The average female young adult held

$20,230 and male young adults had $19,902 in non-zero debt. Non-Latinx white young adults comprised the majority of our sample (58%), followed by non-Latinx Black young adults (24%) and Latinx young adults (19%). For both white and Black young adults, women held more outstanding debt than their male counterparts. Although Latinx men held more debt than Latinx women, the average difference was only significantly different when non-zero debt holders were excluded.

Complete descriptive statistics about our analytic sample are available in Appendix A. Demographic characteristics of the respondents show that respondents are on average 26 years old. Women were more likely to be married, be parents and homeowners, whereas men earned more, had higher rates of unemployment, and report living with their parents. Women were more likely to be pursuing graduate degrees and be enrolled in a postsecondary degree program during the study period. Men held STEM or managerial occupations to greater degree, however, there was no difference among Black women and men. Men reported greater financial assets compared with women who report having more debt other than student loans. Young men came from wealthier households and reletedly young men have average net worth of $41,649 compared with $32,338 among young women. Despite vast wealth differentials by race, Black, white, and Latinx men have higher net worth than their female counterparts. While these summary values are suggestive that women have more debt and may be more financially vulnerable, we turn to our multivariate models to understand how inequalities in social characteristics contribute to these differences and how they evolve over time.

Results

In Table 2, we present the results from the HLM models that address our first set of research questions related to gender disparities in student debt across young adulthood. Specifically, how do differences in student debt change over time among young adult women and men? We present five different sets of models. All columns include the debt gender disparity at baseline (the intercept), the debt gender disparity over time (the slope), the time coefficient (the year), and all the controls. Models 2-5 address the question of how differences in student debt change over time among young adult women and men, after accounting for gender inequalities in family background (Model 2), post-secondary schooling (Model 3), and young adult roles (Model 4). Model 5 includes all the interaction terms from Models 2, 3, and 4. We find women have more debt at baseline, approximately 70% more, but the disparity is not significant after adjusting for baseline differences. The gender debt disparity grows 3.5% over time. Young adult men pay down their debt at a faster rate, at 11.04% compared to 8.02% for women.

We find that gender, race, educational characteristics, employment characteristics, assets, and family characteristics are all essential for shaping debt trajectories across young adulthood. With all controls included, Black young adults consistently report significantly higher debt, holding 83.3% more debt relative to white young adults. Educational characteristics associated with greater debt included enrolling in school for a greater number of years, attending for-profit institutions, attending private institutions for a greater number of years, and being a full-time student. Educational factors associated with lower levels of debt included enrolling in two-year and four-year colleges and universities but not completing the degree, and graduating with a degree. Labor market characteristics associated with decreased debt include being in a STEM-

related occupation. Financial characteristics associated with increased debt levels across adulthood included having greater financial assets, and homeownership. Finally, family characteristics associated with lower levels of debt included being married and living with parents.

[Insert Table 2 about here]

Table 3. Within Racial and Ethnic Group Gender Student Debt Trajectories

Next, we move onto results for factors predicting debt levels among white, Black, and Latinx young adults and by gender (Table 3). Overall, we find that white women have a larger amount of debt compared to white men at baseline (Model 1). In addition, white women pay off their debt at a slower rate compared to white men. With all controls included (Model 2), factors associated with greater debt among white young adults include being older in age, enrolling in school for a greater number of years, attending school full-time, attending private and for-profit institutions, having other debt, having other financial assets, and owning a home. Factors associated with less debt among white adults include graduating with a degree, as well as family characteristics, such as being married, being a parent, and living with parents.

Models 3 and 4 shows factors predicting levels of debt among Black young adults. Black women were significantly more likely to have more debt compared to Black men at baseline (Model 3). Including all controls, (Model 4), factors associated with lower levels of debt across time included attending a two-year college and not completing a degree, graduating from college with and without a degree, having lower wages, being married, and living with parents. Factors associated with higher levels of debt include enrolling for a longer duration in a private school, enrolling in school for a greater number of years, enrolling in school full-time for a greater number of years, having other debt and financial assets, owning a home, and being a parent.

Models 5 and 6 show factors associated with debt levels among Latinx young adults. Gender was not significantly associated with debt levels, although Latinx women had higher levels of debt relative to Latinx men (Model 5). With all controls added (Model 6), factors associated with greater debt among Latinx adults included being enrolled in school for a greater number of years, spending a greater number of years as a full-time student, paying a greater percentage of in-state tuition and fees, spending a greater number of years in private school, as well as financial characteristics such as having other debt, having financial assets, and owning a home. Factors associated with less debt included attending a two-year and four-year college without completing a degree, being married, and living with parents.

[Insert Table 3 about here]

Table 4. Within Gender Racial Student Debt Trajectories

In our next set of results, we present models examining racial and ethnic differences in debt levels within gender for women and men (Table 4). Among women (Model 1), Latinx women had lower debt at baseline compared to white women. Black women had higher levels of student debt at baseline relative to white women. Including all controls (Model 2), factors that were associated with increased debt included being a Black woman, being enrolled in school for a longer number of years, being enrolled for a greater percentage full-time, attending a private institution for a greater percentage of years, attending a for-profit institution, and having higher in-state tuition and fees. Additional factors associated with greater debt included having other debts, having greater financial assets, and owning a home. Factors associated with decreased debt among women included attending a two-year college, graduating with or without a college degree, working in a STEM-related occupation, being married, and living with parents.

Among men, at baseline, Latinx men were more likely to have lower levels of debt, while Black men were more likely to have higher levels of debt relative to white men (Model 3). Including all controls, factors associated with lower levels of debt among men included enrolling in a two-year college and not completing a degree, graduating with a college degree, being married, and living with parents. Factors associated with higher levels of debt among men included enrolling in school for a greater number of years, spending a greater amount of time in private institutions, attending a for-profit institution, and having higher in-state tuition and fees. Financial characteristics associated with having greater debt included having financial assets, other debt, and owning a home.

Discussion

The increase in women's enrollment and completion in college over the last few decades has consequences for understanding gender and racial mobility through debt accumulation. Our study examined factors contributing to gender and racial disparities in debt among young adults. Our results indicate that at baseline, there were gendered differences in levels of debt, with women having higher levels of debt compared to men and taking a longer time to pay off their debts compared to men. We included educational, labor market, financial, and family characteristics as covariates to adjust for the gendered and racialized debt trajectories. We found that in general, educational characteristics associated with decreased debt included graduating from college, while educational characteristics associated with increased debt included attending for-profit institutions, spending a greater share of time in private institutions, and spending more time as a full-time college student. Family characteristics associated with decreased debt included being married and living with parents. Financial characteristics associated with increased debt included having other debts, having financial assets, and owning a home. We also

found that Black women and Black men had higher levels of debt at baseline compared to white and Latinx men and women, reflecting existing racialized patterns in wealth accumulation.

Although this study provides important insights on factors related to student debt disparities across race, ethnicity, and gender, there are limitations to the study. The measurement of parental income and parental net worth only came from the initial survey wave in 1997, so we are unable to capture changes in parental income and parental net worth throughout the early and young adulthood period. Since federal aid for dependent children is based on the parents' financial position, any changes to their household income and wealth are not captured within our analyses. In addition, this study focuses on white, Black, and Latinx young adults due to data limitations. Future research must also examine gender debt patterns among Native American young adults who have high debt patterns and experienced decline in college enrollment post Great Recession(Nelson et al., 2020), and Asian Americans, whose rates of college enrollment and completion continue to increase (Addo & Zhang, 2019).

Our results reveal that gendered and racialized debt trajectories reflect current gendered and racialized wealth inequities in young adulthood. Millennial women, single and married, tend to have less wealth than men and Black and Latinx women hold less wealth than their male counterparts (Bhattacharya et al., 2019). Despite their academic achievements, women's economic positions when assessed through a wealth lens remain behind men and educational debt disparities may be an additional factor reducing the potential economic returns to higher education.

References

AAUW. (2017). *Deeper in Debt: Women & Student Loans*. AAUW : Empowering Women Since

    1881. https://www.aauw.org/resources/research/deeper-in-debt/

Addo, F. R. (2014). Debt, Cohabitation, and Marriage in Young Adulthood. *Demography*, *51*(5),

    Article 5. https://doi.org/10.1007/s13524-014-0333-6

Addo, F. R. (2017). Financial Integration and Relationship Transitions of Young Adult

    Cohabiters. *Journal of Family and Economic Issues*, *38*(1), 84–99.

    https://doi.org/10.1007/s10834-016-9490-7

Addo, F. R., Houle, J. N., & Sassler, S. (2019). The Changing Nature of the Association

    Between Student Loan Debt and Marital Behavior in Young Adulthood. *Journal of*

    Family and Economic Issues, *40*(1), 86–101. https://doi.org/10.1007/s10834-018-9591-6

Addo, F. R., Houle, J. N., & Simon, D. (2016). Young, Black, and (Still) in the Red: Parental

    Wealth, Race, and Student Loan Debt. *Race and Social Problems*, *8*(1), Article 1.

    https://doi.org/10.1007/s12552-016-9162-0

Addo, F. R., & Ricketts, L. R. (2019). As Fewer Young Adults Wed, Married Couples' Wealth

    Surpasses Others'. *In the Balance*, *22*, 1–9.

Addo, F. R., & Zhang, X. (2020). Debt Concordance and Relationship Quality: A Couple-Level

    Analysis. *Journal of Family and Economic Issues*, *41*(3), 405–423.

    https://doi.org/10.1007/s10834-020-09687-8

Addo, F. R., & Zhang, Y. (2019). *The Emerging Millennial Wealth Gap*. New America.

    http://newamerica.org/millennials/reports/emerging-millennial-wealth-gap/

Altonji, J. G., & Blank, R. M. (1999). Chapter 48 Race and gender in the labor market. In *Handbook of Labor Economics* (Vol. 3, pp. 3143–3259). Elsevier. https://doi.org/10.1016/S1573-4463(99)30039-0

Barroso, A., & Brown, A. (2021, May 25). Gender pay gap in U.S. held steady in 2020. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2021/05/25/gender-pay-gap-facts/

Becker, G. S. (1981). *A Treatise on the Family*. Harvard University Press.

Bhattacharya, J., Price, A., & Addo, F. R. (2019). *Clipped Wings: Closing the Wealth Gap for Millennial Women*. The Insight Center.

Bozick, R., & Estacion, A. (2014). Do student loans delay marriage? Debt repayment and family formation in young adulthood. *Demographic Research*, *30*(69), 1865–1891. https://doi.org/10.4054/DemRes.2014.30.69

Buchmann, C., & DiPrete, T. A. (2006). The Growing Female Advantage in College Completion: The Role of Family Background and Academic Achievement. *American Sociological Review*, *71*(4), Article 4. https://doi.org/10.1177/000312240607100401

Cottom, T. (2017). *Lower Ed: The Troubling Rise of For-Profit Colleges in the New Economy*. The New Press.

Dwyer, R. E., Hodson, R., & McCloud, L. (2012). Gender, Debt, and Dropping Out of College: *Gender & Society*. https://doi.org/10.1177/0891243212464906

Espinosa, L. L., Turk, J. M., Taylor, M., & Chessman, H. M. (2019). *Race and ethnicity in higher education: A status report*.

Freese, J., & Powell, B. (1999). Sociobiology, Status, and Parental Investment in Sons and
    Daughters: Testing the Trivers-Willard Hypothesis. *American Journal of Sociology*,
    104(6), 1704–1743. https://doi.org/10.1086/210221

Houle, J. N., & Addo, F. R. (2018). Racial Disparities in Student Debt and the Reproduction of
    the Fragile Black Middle Class. *Sociology of Race and Ethnicity*, *Forthcoming*.

Houle, J. N., & Addo, F. R. (2019). Racial disparities in student debt and the reproduction of the
    fragile black middle class. *Sociology of Race and Ethnicity*, *5*(4), 562–577.

Huelsman, M. (2019). *Debt to Society: The Case for Bold, Equitable Student Loan Cancellation
    and Reform | Demos*. https://www.demos.org/research/debt-to-society

Jackson, B. A., & Reynolds, J. R. (2013). The Price of Opportunity: Race, Student Loan Debt,
    and College Achievement. *Sociological Inquiry*, *83*, 335–368.

Keane, M. P., & Wolpin, K. I. (2001). The Effect of Parental Transfers and Borrowing
    Constraints on Educational Attainment. *International Economic Review*, *42*(4), 1051–
    1103. https://doi.org/10.1111/1468-2354.00146

Miller, K. (2017). Deeper in Debt: Women and Student Loans. In *American Association of
    University Women*. American Association of University Women.
    https://eric.ed.gov/?id=ED580345

National Center for Education Statistics. (2018). *Number and percentage distribution of first-
    time postsecondary students starting at 2- and 4-year institutions during the 2011-12
    academic year, by attainment and enrollment status and selected characteristics: Spring
    2014*. https://nces.ed.gov/programs/digest/d18/tables/dt18_326.50.asp?current=yes

Nau, M., Dwyer, R. E., & Hodson, R. (2015). Can't Afford A Baby? Debt and Young
    Americans. *Research in Social Stratification and Mobility*, *42*, 114–122.

Nelson, C., Tachine, A., & Lopez, J. (2020). *Recognize It's Our Land, and Honor the Treaties.*

Parker, K. (2021, November 8). What's behind the growing gap between men and women in college completion? *Pew Research Center*. https://www.pewresearch.org/fact-tank/2021/11/08/whats-behind-the-growing-gap-between-men-and-women-in-college-completion/

Quadlin, N., & Conwell, J. A. (2020). Race, Gender, and Parental College Savings: Assessing Economic and Academic Factors. *Sociology of Education*, 0038040720942927.

Scott-Clayton, J. E. (2018). *What accounts for gaps in student loan default, and what happens after*.

Seamster, L., & Charron-Chénier, R. (2017). Predatory Inclusion and Education Debt: Rethinking the Racial Wealth Gap. *Social Currents*, *4*(3), Article 3.

Vespa, J. (2017). *Young Adults Delay Milestones of Adulthood*. The United States Census Bureau. https://www.census.gov/library/stories/2017/08/young-adult-video.html

Table 1. Descriptive Statistics

	(1) Full Sample	(2) Women	(3) Men	(4) Black	(5) Latinx	(6) Non-Latinx Non-Black
R has Debt (1=yes)	0.438	0.467	0.403	0.498	0.373	0.435
LN Debt	8657.40 (18647.20)	9447.70 (18540.80)	7697.40 (18731.60)	9844.30 (17044.80)	7053.70 (18081.00)	8693.50 (19401.00)
LN Debt Non-zero	19757.20 (23963.50)	20230.10 (22759.10)	19091.80 (25549.60)	19785.10 (19678.50)	18915.50 (25543.20)	19978.10 (25289.70)
Social Background Race/Ethnicity						
Black	0.24	0.27	0.20			
Latinx	0.19	0.19	0.19			
White	0.58	0.55	0.62			
Age (in years)	25.67 (3.95)	25.63 (3.95)	25.72 (3.94)	25.93 (3.95)	25.70 (3.93)	25.56 (3.94)
Parents Education (<=HS degree ref)						
Some College	0.30	0.31	0.30	0.32	0.24	0.31
Four Year Degree +	0.33	0.29	0.38	0.17	0.15	0.46
Parents Income (1997, LN)	8.40	8.34	8.48	7.65	7.09	9.14
	(4.38)	(4.37)	(4.40)	(4.45)	(4.77)	(4.07)
Parents' Net Wealth (IHS transformed)	8.00	7.54	8.56	5.14	5.95	9.83
	(7.27)	(7.52)	(6.92)	(8.03)	(7.38)	(6.29)
Family Structure of Origin (ref=2 parent bio)						
Step Family	0.13	0.13	0.12	0.14	0.10	0.13
Single Parent Family	0.28	0.30	0.26	0.49	0.31	0.19
Other Family Structure	0.03	0.04	0.03	0.07	0.03	0.02
Raised in urban area	0.80	0.79	0.81	0.86	0.90	0.75

Census region of origin (ref: northeast						
North Central	0.25	0.23	0.27	0.19	0.07	0.33
South	0.35	0.37	0.33	0.60	0.27	0.28
West	0.23	0.23	0.23	0.07	0.53	0.21
Number of people in household under 18, in 1997	2.33	2.35	2.30	2.46	2.53	2.21
	(1.18)	(1.24)	(1.12)	(1.35)	(1.31)	(1.05)

<u>Postsecondary Educational Characteristics</u>
Highest Degree Pursued/Attained (ref=Four Year College, Degree Attained or higher

Two Year, No Degree Attained	0.28	0.26	0.29	0.33	0.41	0.21
Two Year, Degree Attained	0.09	0.10	0.09	0.09	0.11	0.09
Four Year, No Degree Attained	0.32	0.31	0.33	0.35	0.28	0.32
Graduate School, No Degree Attained	0.04	0.05	0.04	0.04	0.03	0.05
Graduate School, Degree Attained	0.05	0.05	0.04	0.04	0.02	0.06
R is currently enrolled (1=yes)	0.43	0.45	0.40	0.43	0.42	0.43
Number of Times R Unenrolled	0.69	0.70	0.69	0.75	0.69	0.67
	(0.64)	(0.67)	(0.62)	(0.68)	(0.66)	(0.62)
Number of Times R Re-enrolls	0.23	0.25	0.19	0.28	0.24	0.20
	(0.48)	(0.51)	(0.45)	(0.54)	(0.50)	(0.45)
Prop. Years Enrolled Full Time	0.77	0.77	0.76	0.73	0.66	0.81
	(0.35)	(0.34)	(0.35)	(0.36)	(0.40)	(0.31)
Prop. Years Enrolled in Private Institution	0.18	0.18	0.18	0.15	0.16	0.20
	(0.34)	(0.34)	(0.34)	(0.31)	(0.31)	(0.36)
Attended For Profit (1=yes)	0.16	0.18	0.14	0.26	0.20	0.10
	(0.37)	(0.38)	(0.35)	(0.44)	(0.40)	(0.31)
Total Aid to Cost Ratio	0.79	0.80	0.77	0.82	1.22	0.64
	(1.07)	(1.21)	(0.88)	(0.61)	(1.04)	(1.18)

<u>Young Adult Social/Economic Characteristics</u>

Employed Full-time (1=yes)	0.59	0.55	0.64	0.58	0.61	0.59
Wages (LN)	9.08	8.94	9.26	8.63	9.02	9.29
	(2.81)	(2.83)	(2.78)	(3.18)	(3.02)	(2.55)
Has STEM/managerial occupation	0.19	0.17	0.21	0.12	0.15	0.23
	(0.39)	(0.38)	(0.41)	(0.32)	(0.36)	(0.42)
Young Adults' Wealth						
Young Adult Net Wealth (Assets – Debts)	36536.90	32332.90	41649.80	17024.50	36155.10	44592.30
	(101443.70)	(108723.00)	(91560.00)	(59789.10)	(92722.90)	(115548.70)
Unsecured Debt (LN)	4.40	4.85	3.85	3.88	4.76	4.50
	(3.85)	(3.82)	(3.82)	(3.75)	(3.80)	(3.89)
Financial Assets (LN)	7.08	6.88	7.34	5.47	6.78	7.84
	(3.43)	(3.46)	(3.38)	(3.78)	(3.48)	(3.00)
R owns home (1=yes)	0.28	0.28	0.27	0.15	0.23	0.34
Marital Status (Never Married=ref)						
Married	0.26	0.27	0.25	0.16	0.28	0.30
Divorced/Separated	0.04	0.05	0.04	0.04	0.06	0.04
R has bio child (1=yes)	0.32	0.38	0.26	0.49	0.36	0.25
R lives with parents (1=yes)	0.32	0.30	0.34	0.33	0.41	0.28
Observations (Person-Years)	32219	17672	14547	7583	6031	18605

Table 2. Gender Disparities in Student Debt Trajectories

	Model 1	Model 2	Model 3
Intercept (disparity @ baseline)			
Women (Intercept; ref=men)	0.202+	0.071	-0.005
	(0.12)	(0.11)	(0.11)
Slope (change over time)			
Time(slope for male young adults)	0.178***	-0.130***	-0.118***
	(0.02)	(0.03)	(0.08)
Gender*Year	0.065***	0.031*	0.035**
	(0.01)	(0.01)	(0.01)
Model Covariates			
Intercept: Family Background	No	Yes	Yes
Intercept: PSE Characteristics	No	Yes	Yes
Intercept: Young Adult Characteristics	No	No	Yes

Table 3. Within Racial and Ethnic Group Gender Student Debt Trajectories

	White		Black		Latinx	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept (disparity @ baseline)						
Women (Intercept; ref=men)	0.167	-0.022	0.411+	0.017	0.088	0.108
	(0.16)	(0.15)	(0.25)	(0.23)	(0.26)	(0.23)
Slope (change over time)						
Time(slope for male young adults)	0.167***	-0.164***	0.221***	-0.047	0.168***	-0.056
	(0.01)	(0.03)	(0.02)	(0.04)	(0.02)	(0.05)
Gender*Year	0.054**	0.029+	0.091**	0.043	0.045	0.029
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
Model Covariates						
Intercept: Family Background	No	Yes	No	Yes	No	Yes
Intercept: PSE Characteristics	No	Yes	No	Yes	No	Yes
Intercept: Young Adult Characteristics	No	Yes	No	Yes	No	Yes

Table 4. Within Gender Racial Student Debt Trajectories

	Women		Men	
	Model 1	Model 2	Model 1	Model 2
Intercept (disparity @ baseline)				
Black (Intercept; ref=white)	0.167	-0.022	0.411+	0.017
	(0.16)	(0.15)	(0.25)	(0.23)
Latinx	-0.611**	0.022	-0.527*	0.314
	(0.22)	(0.22)	(0.23)	(0.24)
Slope (change over time)				
Time (slope for white young adults)	0.221***	-0.136***	0.168***	-0.085**
	(0.01)	(0.03)	(0.01)	(0.03)
Black*Year	0.091***	0.080***	0.053*	0.074**
	(0.02)	(0.02)	(0.03)	(0.02)
Latinx*Year	-0.007	-0.031	0.003	-0.021

	(0.03)	(0.02)	(0.03)	(0.03)
<u>Model Covariates</u>				
Intercept: Family Background	No	Yes	No	Yes
Intercept: PSE Characteristics	No	Yes	No	Yes
Intercept: Young Adult Characteristics	No	Yes	No	Yes