When Does My Future Begin? Student Debt and Intragenerational Mobility

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Abstract

Higher education funding policy rests on the assumption that college graduates enjoy equal opportunities for economic mobility regardless of how they finance their education. To test this assumption, this study compares the time it takes to move up the economic ladder for young adults who acquired student debt and those who did not. Findings reveal that college graduates who acquired student debt take longer to reach the midpoint of the net worth distribution than college graduates who financed their education without student debt. In fact, an additional $10,000 of student debt - only one third of the average amount college students acquire - is associated with a 26% decrease in the rate of achieving median net worth. Even after controlling for key differences, acquiring the relatively small amount of $10,000 in student loans is still associated with an 18% decrease in the rate of achieving median net worth. This study also finds some evidence that student debt is associated with a slower rate of reaching median income. An additional $10,000 in student loans is associated with a 9% decrease in the rate of achieving median income, although these differences do not emerge until about age 35. These findings suggest that over the course of a college graduate's lifetime, those who acquired student debt enjoy fewer opportunities to move up the economic ladder than their counterparts without student loan debt. Findings underscore the inequity created by the current U.S. system of financing higher education.

HIGHER EDUCATION AND THE AMERICAN DREAM OF UPWARD MOBILITY

The American Dream holds that this country is a meritocracy where effort and ability should be the primary determinants of economic success. Further, Americans' understanding of 'effort and ability' features educational attainment—particularly higher education—prominently. As such, colleges and universities are supposed to be catalysts of equitable opportunity, offering all people a fair chance at upward mobility and prosperity. Currently, however, the quest to provide such opportunities for all through the education system is being eroded by financial aid policies that rely heavily on student loans. This accounting makes the ability to pay for college a key barrier that prevents some from taking advantage of education's potential to act as an equalizer. Federal financial aid emerged as a response to this affordability challenge, but the policy instrument used today—student loans—may undermine education's equity aims.

ASKING THE RIGHT QUESTION

Most of research on the return a student will receive from a college degree is designed to determine whether a young adult who attends college is better off than if he or she did not attend college. This approach, however, does not examine the equalizing potential of higher education in today's funding context. To examine this, we need to ask a different question: "Do college graduates who acquire student debt achieve outcomes similar to college graduates who do not acquire student loans?" Here, we find evidence that they do not.

THE LANDSCAPE OF STUDENT DEBT

Student loans have become the central college financing mechanism for millions of Americans. As Adamson (2009) described, "Of all the transformations that have taken place in the American university…, perhaps the most radical is the shift toward financing higher education through borrowed money" (p. 97). Recent research suggests that student loans cover 50% of net tuition, fees, room, and board (Greenstone, Looney, Patashnik, & Yu, 2013) and that the average student leaves college with about $29,400 of student loan debt (Miller, 2014). While many students rely on student loans to pay for college, however, there are real differences in the extent to which different groups rely on student loans to pay for college. Huelsman (2015), for instance, reported that 84% of bachelor's degree recipients at public colleges who receive Pell Grants take out student loans compared to only 46% of those who never received Pell. In addition, research suggests that race may also factor in how much students rely on students loans. Grinstein-Weiss, Perantie, Taylor, Guo, and Raghavan (2016) found that the odds of a Black low- or moderate-income (LMI) student having outstanding student debt were twice as high as a

white LMI student. Moreover, Black LMI students carried more student loan debt than white LMI students, amounting to about $7,721 more student debt than their white counterparts over the course of their college careers.

UNEQUAL RETURN ON DEGREE—WHAT WE KNOW

Students do not appear to benefit equally from their investments of talent and effort in pursuit of higher education. Hershbein (2016) found that college graduates who grew up in families with incomes below 185% of the federal poverty level realize a smaller wage premium from their degrees than those who were not low income as children. Similarly, researchers at the Federal Reserve Bank of St. Louis found that Latino and Black students receive less benefit from having obtained a degree than their White and Asian counterparts (Emmons & Noeth, 2015). They also found evidence that a college degree protects college graduates' income and wealth unequally, with college-graduate families of color seeing greater wealth declines between 2007 and 2013 than White families (Emmons & Noeth, 2015).

A growing body of research suggests that student debt may be an integral factor in explaining these divergent outcomes, where higher education brings far greater return on the expense of effort and ability of already-privileged Americans when compared to their disadvantaged peers. These effects appear to unfold on several fronts, including homeownership rates or initiation (Brown & Caldwell 2013; Stone, Van Horn, & Zukin 2012; Cooper & Wang 2014; Houle & Berger 2014; Dynarski, 2016), access to affordable mortgages (Mishory & O'Sullivan, 2012), and development of home equity, retirement savings, and net worth (Hiltonsmith, 2013; Elliott, Grinstein-Weiss, & Nam 2013; Egoian, 2013; Fry 2014; Cooper & Wang 2014). In the aggregate, the inescapable conclusion is that higher education may be a less promising path to the American Dream for those who start out behind.

METHODS

We use student loan, net worth, and income data from the National Longitudinal Survey of Youth 1979, which followed 12,686 young people and recorded their significant life events. We limit our analyses to young adults with a four-year college degree who are at least age 22, including young adults who have a postgraduate degree. The longitudinal data include repeated measures over a 32-year span with the baseline year being the year that each subject reached the age of 22. Most young adults are not observed for the full 32 years, but we include all of the data available. Our primary measures of interest include household net worth, household income, and the amount of student debt amassed. We measure mobility as the likelihood and rate of achieving median household net worth or income. This aligns with a sense of having 'made it' in the U.S. economy, while tracking movement out of the bottom. This measure also provides a consistent

measurement over time and avoids limitations of other benchmarks that may be more susceptible to distortion by a particular job market or macroeconomic cycle.

To compare trajectories of those with and without loans, we first graphically examine mobility patterns using Kaplan-Meier estimates of the survival function. The Kaplan-Meier estimator provides an estimate of the probability of survival past a given time. In this case, "survival" represents those who have not achieved median income or net worth at a given time. Next, we use survival analysis to estimate the time it takes an individual to reach median net worth or income from age 22. We estimate three Cox proportional hazards models using the full sample of college graduates. The first includes only student loans. The second controls for gender and race. The third includes several additional controls, including level of higher education, occupational category, marital status, welfare use, geographic location, and baseline net worth or income. The third model includes measures that could depend on outstanding student loans. Because individuals may respond differently to holding a student loan, including these controls can make it difficult to interpret the results. Due to these potential heterogeneous responses, our preferred estimates include only gender and race, along with student loan value. However, we include the third model with multiple covariates to assess robustness. Finally, we estimate whether the relationship between student loans and time to achieve median net worth or income differs by race or gender. We do this by including interaction terms and also by estimating separate models when limiting the samples to men, women, Black, Latino, and other race individuals.

FINDINGS

Descriptive: College graduates with student loans have about 30% less net worth than college graduates without student loans. While college graduates with student loans earn more than college graduates without student loans, there is not a statistical difference in their income. Descriptive results suggest that young adults who acquire student loans reach median wealth (but not income) more slowly than their counterparts.

Survival Analysis: Figure 1 illustrates the likelihood of remaining below median wealth for college graduates who acquired student loans and those who did not. The figure illustrates that those with student loans achieve median net worth more slowly than those without student loans. That is, the survival curve for four-year college degree holders with student loans falls more slowly than the curve for those who completed their education without acquiring student debt. In addition, those who acquired student debt are slightly less likely to achieve median wealth by age 52 than those who never took on student loans.

Figure 1. Kaplan-Meier Survival Estimates of Time to Median Net Worth
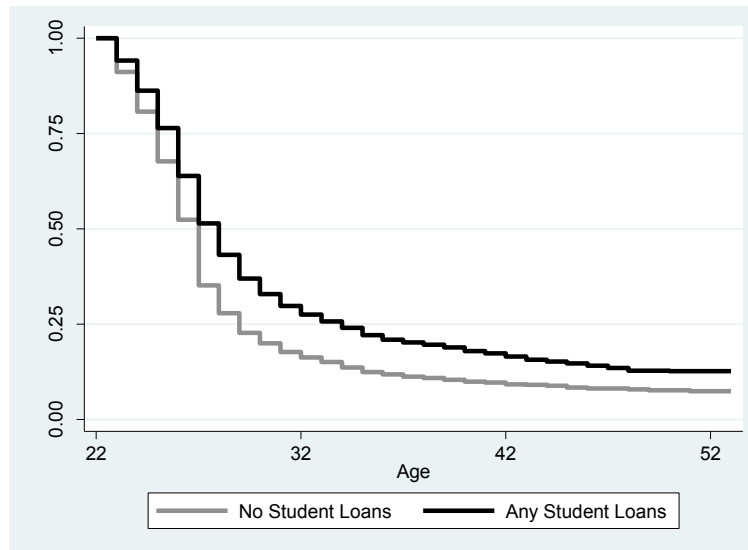

Figure 2 illustrates the likelihood of remaining below median household income for college graduates who acquired student loans and those who did not. The curve for young adults with student loans falls slightly more slowly than the curve for those without. However, the curve for those with loans is slightly lower than the curve for those without by about age 35. A comparable graph examining time to achieve median income suggests no difference by student loan acquisition.

Figure 2. Kaplan-Meier Survival Estimates of Time to Median Total Household Income
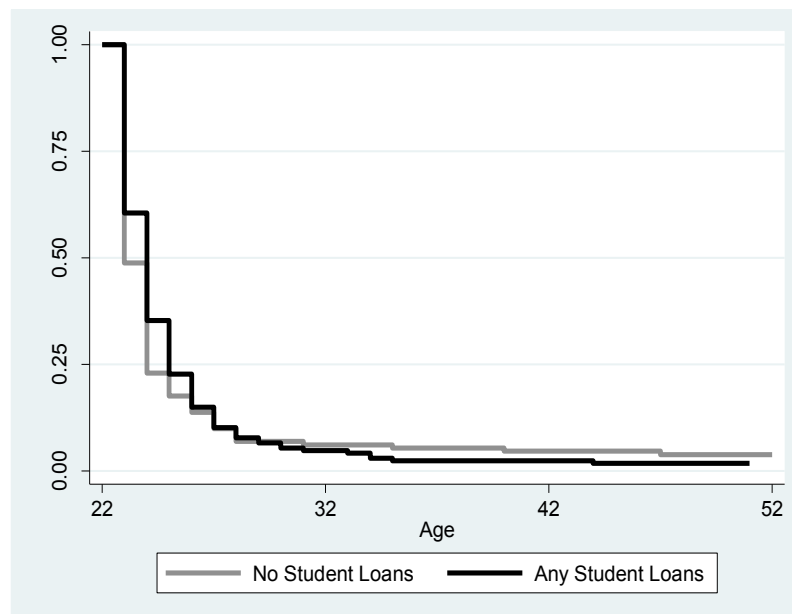
Cox Proportional Hazards Models: The average college student in this study acquires $24,534.42 (median $13,494) of student loan debt. Findings from this study suggest that even one third of the average amount, an additional $10,000 in student loans, is associated with a 26% decrease in the rate of achieving median net worth. Our third model includes several additional covariates, including baseline net worth, postgraduate degree, family size, marital status, welfare support, occupational category, and geography. With all of these measures included, the relationship between student loans and time to median wealth is still negative. Specifically, an additional $10,000 in student loans is associated with an 18% decrease in the rate of achieving median net worth.

Those who have student loans could have lower net worth simply because of the amount of their outstanding student loan debt. However, even when adjusting net worth for outstanding student loan debt in the two years it is available, the negative relationship between student loans ever acquired and time to reach median net worth still holds. This result is far from conclusive but suggests that the delay in reaching median net worth is not simply mathematical. Even when excluding the amount of student loan debt from the calculation of net worth, those with student loans still reach the median more slowly.

When comparing the relationship between student loans and achievement of median net worth, the results suggest a slight negative relationship for all groups except Blacks. This suggests that student loans may hinder the ability of young adults to build wealth and achieve upward mobility, but for Black college graduates, student loans may not present an additional hurdle to net worth accumulation. This could reflect high rates of borrowing to fund college among Blacks, the difficulty of achieving median net worth for Black households with or without loans (Conley 1999; Shapiro 2004), or some other factor. In all three models, the relationship between student loans and time to median income is small and negative, but not significantly different from zero.

DISCUSSION

Student Debt Incompatible with Higher Education's Equalizer Role

These findings indicate there is a real price to paying for college with student loans. More specifically, our study calls into question the viability of the student loan program as a pathway to the American Dream by showing that even small amounts of student debt may be associated with a reduction in the return on a college degree. Importantly, these findings also bring into question policies such as Income-Based Repayment, which treat the symptom—student loan default—but may only be helping to create a worse student loan crisis in the long run by prolonging the time it takes for people to pay off their debt. Moreover, because low-income students and minorities disproportionately rely on student loans to pay for college, policies that promote student loan use introduce additional levers of inequality into the higher education system. Zhan et al. (2016), for instance, found that Black students with outstanding student loans had $5,300 (40%) less net worth than their White counterparts, also with outstanding student loans. If a key role of education is to create greater economic mobility and equity, financial aid policies should augment education's capacity to function as an equalizer. It is not enough that students have a way to pay for college; our results suggest that how they pay for college also matters. If a key

role of education is to create greater economic mobility and equity, then we suggest that financial aid policies should augment education's capacity to function as an equalizer. As expressions of asset-based approaches to financial aid, Children's Savings Accounts or CSAs may be one such intervention. Typically started at birth or kindergarten, CSAs leverage families' investments with an initial deposit and matching donor funds, usually at a 1:1 ratio. Unlike student debt, CSAs have the potential to work on multiple dimensions—early education, affordability, completion, and post-college financial health—to improve outcomes and catalyze opportunity (Elliott & Lewis, 2015).

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