When Does My Future Begin?

Student Debt and Intragenerational Mobility

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Real Hourly Wages by Education

(all workers, normalized; 1973=100)



The Return of the Roaring Twenties

The share of total U.S. wealth owned by the top 0.1 percent of families, 1913-2012



Notes: Wealth is total assets (including real estate and funded pension wealth) net of all debts. Wealth excludes the present value of future government transfers (such as Social Security or Medicare benefits).

Source: Saez, Emmanuel and Gabriel Zucman "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data", NBER Working Paper, October 2014, online at http://gabriel-zucman.eu/uswealth/ Washington Center Fequitable Growth

Education to the Rescue?

- Long-standing U.S. faith in education to solve all of our problems
 - National identity compulsory schooling
 - Segregation Brown v. Board of Education Topeka
 - Global competitiveness Sputnik, A Nation at Risk
 - Inequality
- At least since Horace Mann, we think of education as "the great equalizer" (1848)

Funding Higher Education

How the typical family pays for college (the average percentage of the total cost of attendance paid from each source)



Source: Sallie Mae, 2011

Funding Higher Education

How the typical amily pays for college (the average percentage of the total cost of attendance paid from each source)

33% Grants & Parent income & savings scholarships 7% 4% 11% 15% Parent Relatives Student income Student borrowing & friends & savings borrowing

Hides drastic inequality in college funding and rising student debt burdens

Source: Sallie Mae, 2011

Student Loan Debt

- "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" (Adamson 2009:97).
- In 2000, student loans paid for 38% of net tuition, fees, room, and board; by 2013 they covered 50% (Greenstone, Looney, Patashnik, and Yu 2013).
- Current student debt exceeds \$1 trillion and total student debt is higher now than credit card debt in America (Hartman 2013).
- The average student leaves college with about \$29,400 of student loan debt (Miller 2014).



Typical Question

"Is a young adult who attends college better off than if he or she did not attend college at all?" (e.g., Dynarski 2016)

Beyond Access

Do college graduates enjoy an equal return on their degree depending on how they pay for college?

Research Questions

- 1) What is the relationship between acquired student debt and the time it takes young adults to reach median income and net worth (the midpoint of the income and asset distributions)?
- 2) Does this relationship differ by gender or race?

Data

National Longitudinal Survey of Youth 1979

Followed 12,686 young people, recorded significant life events including events related to education, family, income, net worth Annually 1979-1994, biennially 1994-2010

Sample limited to:

- young adults with a 4-year college degree
- age 22+ after typical age of college completion
- with information about household net worth, household income, amount of student loans ever acquired

Measures

- Household net worth: all assets minus outstanding debt; not collected by NLSY in 1991, 2002, 2006, 2010
 - Unadjusted for student loans because outstanding student loan balance only collected in 2 years. Sensitivity analyses using an alternative measure of net worth that adds the total amount of outstanding student loans to 2004 and 2008 net worth measures yield similar results.
- Household income:
 - Gross income total household income from all sources recorded by the NLSY79
 - Wage income income from wages and salary of the individual and his/her partner
- Student loans: total amount of education loans received from the first, second, and (in most years) third most recent colleges attended
- All currency adjusted for inflation to 2010 dollars; in regressions, IHS transformed to address skewness and prevent the exclusion of negative net worth values

Measures

- Indicators for whether the individual's household net worth or income exceeds the U.S. median net worth or income
- Median income each year 1979-2010 from the Census.
- Median wealth each year 1979-2008 obtained from Saez and Zucman (2016)
 - NLSY79 did not collect net worth in 2010
- Covariates: race (white, black, latino, other); gender; level of higher education; occupational category (professional or management; sales or administration; operations, service, farm, or armed forces; no occupation); marital status (single; married; separated, divorced, or widowed); family size; welfare use; geographic region; and baseline net worth or income at the first observation

Analysis

- Survival Analysis
 - "survival" represents those who have not achieved median income or net worth at a given time
 - "failure" indicates achieving median income or net worth
 - we estimate the time it takes to move up the economic ladder to the midpoint of the distribution
- Graphically compare mobility patterns
 - Kaplan-Meier estimates of the survival function for those who did or did not acquire student loans
- Cox proportional hazards models
 - predicting time to reach median income or net worth
- Variation by gender or race
 - interaction terms; separate models limited by gender or race

Kaplan-Meier Survival Estimates of Time to Median Net Worth



Kaplan-Meier Survival Estimates of Time to Median Total Household Income



Delay in Rate of Achieving Median Compared to those without Loans



Predicted Relationship between IHS Student Loans and Rate of Reaching Median Net Worth By Race and Gender



Null relationship among Blacks could reflect: high rates of borrowing to fund college (i.e. small number in the comparison group without loans); difficulty of achieving median net worth for Black households regardless of student loans; or other factors.

Limitations

Associational relationship

- controls, including time-varying controls

- Cox models assume proportional hazards
 - include time-varying controls
- Net worth measure unadjusted for student loans
 - similar results when adjusting in the 2 years outstanding loan value is available
 - far from conclusive, but suggests the delay in reaching median net worth is not simply due to the amount of student debt owed
- Cohorts born 1957-1965
 - relationship may be stronger for more recent cohorts

Conclusions

- *How* students pay for college matters
- College graduates with student loans take more time to move up the economic ladder than those without student loans
 - Robust evidence for delayed wealth mobility; less evidence for income
- College cannot equalize opportunity unless graduates enjoy equal return on the time, money, and effort invested

Policy Implications

Higher Education

- New financing approach: Grants, not loans
- State/federal financial deposits or wealth transfers into CSAs – targeting children in poor families
- Aid should include spending money, to improve networking, experiential, and educational opportunities
- Free community college would not solve unequal quality



Policy Implications

K-12 Level

- Improve public education funding and quality
- Encourage low income youth applications to selective colleges which have better financial aid, higher graduation rates (Hoxby and Avery 2013)





• Thank you

