

Timing Wealth Building to Maximize Return on Degree

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SUMMARY

This academic paper investigates **America’s “return on degree” problem**, which highlights that higher education does not guarantee equal economic outcomes for all graduates. The authors, William Elliott, Benjamin Osafo Agyare, and Subin Min from the University of Michigan, explore how **wealth at different life stages—birth, college enrollment, and graduation—impacts a college graduate’s ability to achieve median U.S. household net worth by middle age**. They utilize data from the Panel Study of Income Dynamics (PSID) and the National Longitudinal Survey of Youth 1979 (NLSY79) to examine these relationships. The study particularly focuses on the **racial wealth gap and the effects of student loan debt**, proposing that targeted wealth transfers, especially soon after college graduation, could significantly enhance economic mobility and reduce disparities. Ultimately, the research suggests policy implications for strengthening the “return on degree” and fostering a more equitable society.

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Introduction: America’s Return on Degree Problem and Policy Solutions

America is facing a significant “return on degree problem,” where earning a college degree does not guarantee similar economic outcomes for all graduates, challenging the traditional view of education as the “great equalizer” (Mann, 1848). Public opinion polls reflect this shift, with a sharp decline in the belief that a college degree is “very important” for financial security (Tough, 2023). Evidence increasingly shows that the return on a degree is not equitable; for example, low-income college graduates and Black graduates often earn less and accumulate significantly less wealth than their higher-income or White counterparts, even from similar institutions (Hershbein, 2016; Hamilton, Darity, Price, Shridharan, & Tippett, 2015). The wealth premium traditionally associated with higher education is shrinking or has vanished for some groups, particularly for Black college graduates born in the 1980s (Emmons, Kent, & Ricketts, 2019). This disparity is compounded by factors such as the rising cost of college and student loan debt.

Student loan debt disproportionately affects low-income and Black students, who are more likely to borrow and borrow larger amounts (Neelakantan, 2023; Scott-Clayton & Li, 2016). This debt can have severe negative impacts on wealth accumulation, including lower credit scores, delayed homeownership, postponed retirement savings, and reduced likelihood of starting a business (Elliott and Lewis, 2016). Research indicates that even a relatively small student loan amount, such as \$10,000, can decrease the rate of achieving median net worth by 18% (Elliott & Rauscher, 2018). These findings suggest that simply eliminating student loan debt through policies like free college tuition may not fully address the problem, as graduates also need initial wealth to leverage their degrees effectively and maximize their financial returns. Wealth is not only crucial for college readiness or payment but also to augment a graduate’s ability to produce wealth, implying that structural factors, rather than just individual behavior, contribute significantly to wealth gaps (Elliott & Lewis, 2016).

Study 1: The Impact of Wealth on Launching into Financially Established Adulthood (PSID Data)

Methods

Study 1 utilized longitudinal data from the Panel Study of Income Dynamics (PSID), a nationally representative sample. The sample was restricted to Black and White individuals who held a bachelor's degree from a four-year college or university, with a focus on those aged 0-5 in 1984 to track their financial progression by early middle age (37-42). The main outcome measured was whether an individual's household net worth reached or surpassed the U.S. median net worth by this established adulthood stage.

To analyze these relationships, the researchers employed Panel Logistic Models using Generalized Estimating Equations (GEE) to assess the probability of reaching median net worth, and Survival Analysis (Kaplan-Meier Curves and Cox Proportional Hazards models) to model the time it takes for college graduates to reach this wealth midpoint.

The study examined several key variables of interest

Birth Wealth

Household net worth when individuals were between ages 0 and 4.

Enrollment Wealth

Household net worth when individuals typically enroll in college, around ages 17-22.

Graduation Wealth

Household net worth when individuals would have typically graduated from college, around ages 25-30.

Race

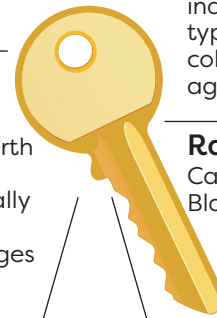
Categorized as Black or White.

Student Loan Amount

Cumulative student loans held by household members.

Financial Literacy

A binary variable based on correct answers to three commonly used financial literacy questions.



Key Findings

Race: White college graduates were found to be **nearly three times more likely** than Black college graduates to have a net worth at or above the U.S. median. Kaplan-Meier curves showed that while White individuals reached the median survival time (50% at or above median net worth) approximately 6 years post-graduation, Black individuals did not reach this benchmark by the end of the study period (13 years post-graduation), with 63% still at risk compared to 29% of White individuals. The Cox-Proportional Hazard model further indicated that White graduates had approximately **twice the instantaneous rate** of attaining median net worth compared to their Black

counterparts.

- **Birth Wealth:** Birth wealth was **not found to be significant** in any of the models predicting post-graduation wealth outcomes.
- **Enrollment Wealth:** Even **small increases in enrollment wealth** had a substantial positive impact on the odds of reaching median net worth by middle age. For instance, **\$500 in enrollment wealth was associated with a 42% increase in odds**, and \$1,000 with a 47% increase. The probability of reaching median net worth increased significantly, especially when moving from negative to positive wealth.

- Graduation Wealth:** Similar to enrollment wealth, graduation wealth showed a strong positive association. An additional **\$500 in graduation wealth was linked to a 52% increase in the odds** of reaching median net worth by middle age, and \$1,000 to a 59% increase. In the Cox-Proportional Hazard model, providing a college graduate with an additional **\$1,000 in graduation wealth increased their likelihood of reaching the median net worth by a factor of 35 (i.e., about 35 times higher) within the first year after graduation.** This effect diminished over time, becoming less impactful after about 6 years. This suggests that the timing of wealth transfers, particularly **between ages 25 to 30**, is most impactful for maximizing return on degree.

Wealth Disparities: The study highlighted that wealth disparities are largest when children reach college age (median Black/White wealth gap of about \$153,950) and smallest around the time they graduate college (median Black/White wealth gap of about \$15,788).

Student Loans: College graduates with low student debt (less than \$10,000) reached median net worth significantly faster than those with high debt (6 years versus 11 years, respectively).

Financial Literacy: In Study 1, financial literacy was **not a significant predictor** of return on degree when graduation wealth was included in the model, but it was significant when graduation wealth was excluded.

Timing Wealth Building to Maximize Return on Degree

- The most impactful time for college graduates to receive a wealth transfer that significantly boosts their return on degree is **between ages 25 to 30**. This period is crucial because it coincides with young adults launching into independent living, and it is also when the racial wealth gap among college graduates is at its smallest. A wealth infusion during this time could be the most efficient and effective way to strengthen the return on a degree and reduce wealth inequality.
- The studies found that even small amounts of wealth, such as **\$500 or \$1,000 in enrollment or graduation wealth**, can have a substantial positive impact on a graduate's likelihood of reaching median net worth. This highlights the potential effectiveness of wealth-building programs that start with modest initial deposits. However, if the goal is to reduce wealth inequality to a level that graduates have a real opportunity to pursue their own financial happiness, larger amounts will likely be needed

- In conclusion, restoring the promise of higher education as a path to economic mobility and equity requires a multi-faceted approach. This includes not only addressing student indebtedness but also implementing policies that provide **targeted wealth transfers to college graduates at critical developmental junctures, particularly between ages 25 and 30.**

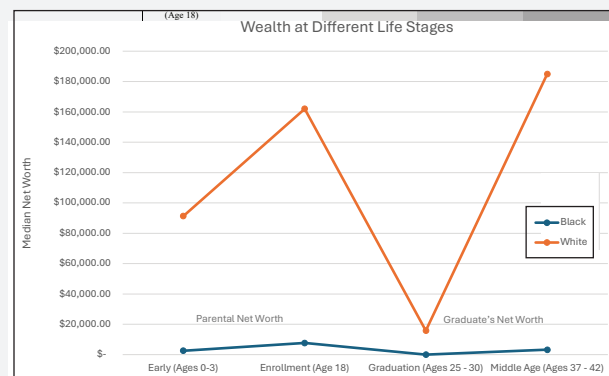


Table 1. Wealth variables by racial group and racial wealth gap (PSID)

Timing of Wealth		Aggregate Wealth	Black Wealth	White Wealth	Black/White Wealth Gap
Parental Wealth	Early Wealth (Ages 0-3)	\$46,800	\$2,600	\$91,300	\$88,700
	Enroll Wealth (Age 18)	\$81,700	\$7,700	\$162,000	\$154,400
Graduate's Wealth	Graduates' Wealth (Ages 25 - 30)	\$6,300	\$0	\$15,800	\$15,800

PSID = Panel Study of Income Dynamics; number rounded to nearest \$100.

Study 2: Robustness Test (NLSY79 Data)

Methods

Study 2 served as a robustness test, using data from the **National Longitudinal Survey of Youth 1979 (NLSY79)**, which follows a cohort of individuals from ages 14-22 in 1979 through to ages 55-64 by 2020. The sample focused on Black and White college graduates who obtained a four-year degree by age 25. The main outcome was whether graduates launched into the **pre-retirement stage (ages 55-64)** by being at or above the U.S. median net worth.

Similar to Study 1, **Logistic Analysis (GEE)** and **Cox-Proportional Hazard models** were used. Kaplan-Meier curves were not estimated due to analytical limitations with multiple imputations.

The study examined several key variables of interest

Graduation Wealth

Net worth attained by age 25. (The NLSY79 dataset did not include parent wealth data, so birth and enrollment wealth could not be examined in this study).

Financial Literacy

Measured as a continuous variable from eight questions, scored using a two-parameter logistic (2-PL) item response theory (IRT) model.

Race

Categorized as Black or White.



Key Findings

Race: White college graduates were about **2.4 times more likely** to have their net worth at or above the U.S. median compared to Black college graduates. Being a White college graduate also increased the hazard of reaching the median net worth faster by a factor of about 1.7.

- **Graduation Wealth:** Graduation wealth was positively associated with reaching the median net worth. An increase of \$500 in graduation wealth was associated with a 25% increase in the odds of reaching median net worth by middle age. An additional \$1,000 in graduation wealth just one year after graduation significantly increased the likelihood by a factor of 5.23 (i.e., more than 5 times higher). These findings largely support those from Study 1 regarding the importance of graduation wealth.

Financial Literacy: Unlike in Study 1 (when graduation wealth was included), financial literacy **emerged as a significant predictor** of the return on a college degree in Study 2, in both the logistic and Cox models. Every unit increase in financial literacy was associated with approximately a **42% increase in the odds** of reaching the median net worth, and a 19% higher hazard.

Control Variables: Family size negatively impacted the odds of reaching median net worth. Residing outside the Northeastern region was associated with significantly lower odds/hazards. Conversely, individuals who married shortly after college were about 1.4 times more likely to achieve the median U.S. net worth.

Policy Implications

The findings from both studies underscore that for education to truly serve as the “great equalizer” and provide a meaningful return on degree for all, especially those from low-wealth backgrounds, specific policy interventions are needed beyond current approaches.

Key policy implications include:

Targeted Wealth Transfers at Optimal Timing

The most impactful time for college graduates to receive a wealth transfer that significantly boosts their return on degree might be **between ages 25 to 30**. This period is crucial because it coincides with young adults launching into independent living, and it is also when the racial wealth gap among college graduates is at its smallest (around \$15,788 median). A wealth infusion during this time could be the most efficient and effective way to strengthen the return on a degree and reduce wealth inequality.

The Power of Small Amounts

The studies found that even small amounts of wealth, such as **\$500 or \$1,000 in enrollment or graduation wealth**, can have a substantial positive impact on a graduate’s likelihood of reaching median net worth. This highlights the potential effectiveness of wealth-building programs that start with modest initial deposits. However, if the goal is to reduce wealth inequality to a level that graduates have a real opportunity to pursue their own financial happiness, larger amounts will likely be needed (see Elliott, Agyare, Zhen, and Min, 2025).

Addressing the Racial Wealth Gap Directly

The persistent racial wealth gap in the return on degree, even when accounting for initial wealth, indicates that deep-seated structural inequalities are at play. While policies like Baby Bonds could help reduce this gap, some researchers suggest that only **large-scale, immediate targeted financial transfers to Black families** may fully eliminate it (Weller, 2024). The government has a vital role in creating economic conditions that support a meritocracy where all individuals have the capability to achieve their own financial happiness (Elliott, Zhen, Agyare & Min, 2025).

Beyond Free Tuition

While policies like free college tuition eliminate student debt, they may not fully address the return on degree problem because graduates need their own wealth to leverage their education effectively. Policies should aim to provide **startup wealth** to graduates to maximize their economic potential.

Children Development Accounts (CDAs) as a Strategic Financial Aid

CDAs are an asset building account that can provide enrollment wealth and help parents build assets for their children. The findings suggest that policies supporting CDAs could strengthen the return on degree and assist graduates in becoming financially established adults, extending their financial impacts well into early middle age. Unlike student loans, which can negatively impact low-income graduates’ post-graduation, giving low-income graduates more assets through programs like CDAs can reduce inequality. Simulations show that a universal CDA program could significantly reduce the Black/White wealth gap by 23% (Shapiro, Meschede, & Osoro, 2013).

Integrating Financial Literacy Training

Financial literacy was identified as an important predictor of successful economic outcomes in Study 2. Therefore, providing financial literacy training, especially when combined with wealth-building policies, could be an effective tool for strengthening the return on degree. This maybe particularly critical given that access to financial literacy education is often lower in low-income and minority communities (Next Gen Personal finance, 2022).



Conclusion

In conclusion, restoring the promise of higher education as a path to economic mobility and equity requires a multi-faceted approach. This includes not only addressing student indebtedness but also implementing policies that provide **targeted wealth transfers to college graduates at critical developmental junctures, particularly between ages 25 and 30**, combined with efforts to boost financial literacy and directly address long-standing racial wealth disparities.

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