



Wealth Inequality Is a Barrier to Education and Social Mobility

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The US wealth gap is fueling an education and upward mobility gap. Wealth, along with income, can buy educational achievement through more books, tutors, and private schools. But wealth also offers a level of security that income (and financial aid, like Pell grants) can't. Young people in families with more wealth can focus on the academic challenges of higher education instead of the financial ones. Because education is a key way to escape poverty and gain economic independence, increasing access to wealth can mean increasing access to opportunity.

Using data from the longitudinal Panel Study of Income Dynamics, we explore the relationship between family wealth and children's higher education achievement and upward mobility. Even after accounting for family income, demographics, and other factors, we find significant differences between young people's education based on their families' wealth:

- **Young people from high-wealth families (wealth above roughly \$223,500) are more than one and a half times as likely to complete at least two or four years of college by age 25 as those in low-wealth families (wealth below \$2,000).¹** High-wealth youth have a 70 percent chance of completing at least two years and a 43 percent chance of completing at least four years of college. Similar young people in low-wealth families have only a 41 percent chance of completing at least two years and a 24 percent chance of completing at least four years.
- **Among families in which parents did not graduate from college, young people from high-wealth families are roughly twice as likely to be upwardly mobile as those from low-wealth families.** First-generation college enrollees from high-wealth families have a 56 percent chance of completing at least two years and a 32 percent chance of completing at least four years of college. Similar college enrollees from low-wealth families have only a 30 percent chance of completing at least two years and a 14 percent chance of completing at least four years.

BOX 1

Approach

Using data from the Panel Study of Income Dynamics (PSID) on the same families over time, we examine how parents' wealth when children are age 18—when many make college-related decisions—relates to children's educational achievement at age 25.^a Our analysis focuses on people who turned 18 between 1989 and 2006, and therefore turned 25 between 1996 and 2013.^b We focus on both having completed at least two years and at least four years of college because upward mobility for first-generation college students frequently involves earning certificates and associate's degrees.

We measure parents' wealth as total family wealth, including home equity. We examine families' wealth relative to one another by placing families into four groups (quartiles) based on where they fall in the wealth distribution: in the bottom 25 percent, between the 25th and 50th percentiles, between the 50th and 75th percentiles, and in the top 25 percent. For someone who turned 18 in 2013, for example, the family wealth variable would indicate the quartile the family falls into using the wealth distribution of all PSID families in 2013. In 2013, families in the bottom 25 percent of the wealth distribution (i.e., low-wealth families) had wealth below \$2,000, those in the top 25 percent (i.e., high-wealth families) had wealth above \$223,436, and the median wealth was \$45,000.

We examine two educational outcomes at age 25 that approximate completion of two or more years and four or more years of college. The PSID provides information on years of school completed but does not directly ask about college enrollment or type of institution attended. Thus, we do not know what type of postsecondary education people are pursuing. We categorize people as completing two or more years of college if they report completing at least 14 years of education and as completing four or more years of college if they report completing at least 16 years of education.

We estimate the relationship between educational achievement (at age 25) and family wealth (at age 18) using regression models that account for a host of individual, family, and state characteristics (at age 18), including family income, parents' educational attainment (all parents completed college, one parent did and one parent did not complete college, no parent completed college), household composition (single parent, number of children, person is oldest child in household), race and ethnicity of household head (black, Latino, nonblack non-Latino), person's gender, year person turned 18, and state-level unemployment rate.^c Using results from the regression models, we calculate the likelihood that a person with average characteristics completes at least two years (or four years) of college if his or her family is in each wealth quartile.

In addition to estimating these models for our full sample, we estimate the same models on the subset of people where neither parent graduated from college. We define upward education mobility as the likelihood an individual whose parents did not graduate from college completes at least two or four years of college.

^a The PSID is a longitudinal survey launched in 1968 with a nationally representative sample of about 5,000 families, interviewed annually from 1968 to 1997 and biennially thereafter.

^b These people were born between 1971 and 1988. We restrict the sample to those living with parents or grandparents at age 18, with grandparents treated the same as parents for this analysis. We do not distinguish between these two groups for ease of exposition.

^c We estimate probit models where the dependent variable equals 1 if the person completed at least two years (or four years) of college education by age 25 and equals 0 otherwise. The results section presents the average marginal effects from the probit models.

Youth from Low-Wealth Families Are Less Likely to Acquire College Degrees

College attainment and upward mobility differ strikingly by family wealth. Without adjusting for family background and other observable characteristics, only 29 percent of youth from the bottom quartile of the family wealth distribution complete two or more years of college education, and only 26 percent are upwardly mobile—that is, complete at least two years when neither parent graduated from college. In contrast, 78 percent of youth from the top quartile of the family wealth distribution complete two or more years of college, and 61 percent are upwardly mobile.² The differences in educational attainment and upward mobility between youth from families in the bottom and top quartiles of the wealth distribution become even larger when examining four-year college completion.

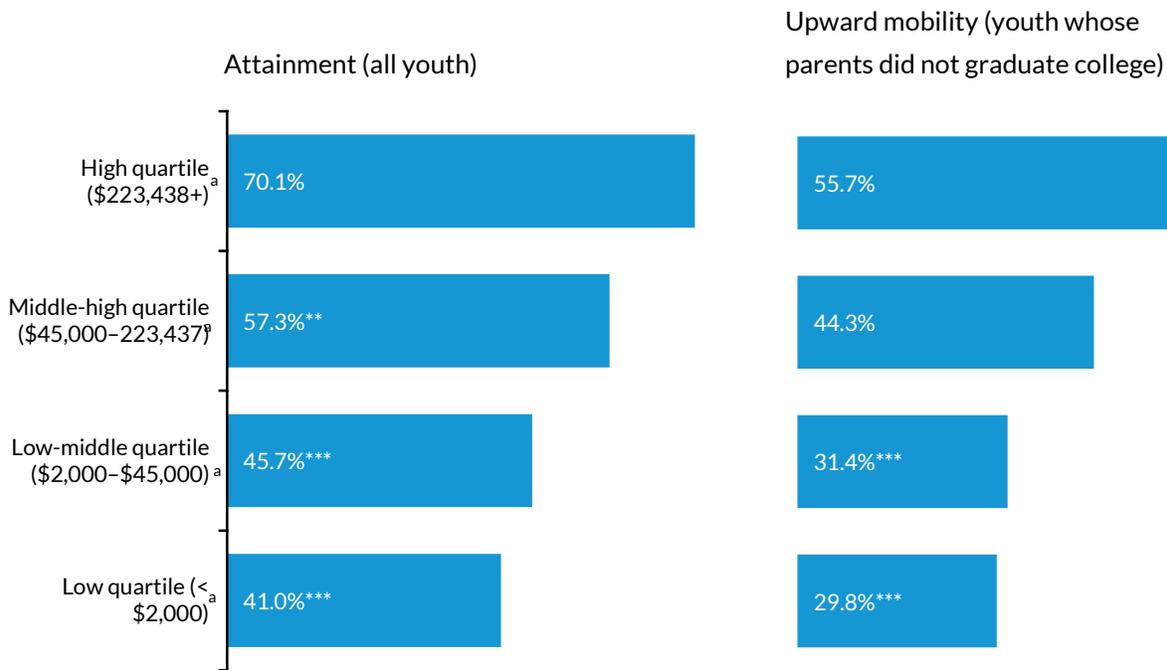
Do these striking differences in college attainment and upward mobility across the wealth distribution just reflect that lower-wealth families also have lower incomes and other characteristics associated with lower educational achievement and mobility? To compare families with the same observable characteristics, we use regression analysis to measure the relationship between wealth and educational attainment and upward mobility (see box 1). We control for family income and demographic characteristics, parental educational attainment, state economic characteristics, and year fixed effects. Appendix A shows the regression model results, and appendix B provides additional context from the literature.

Wealth is strongly associated with higher educational attainment and mobility—even after controlling for family income, demographic characteristics, and parental educational attainment. An average person from a high-wealth family is 29 percentage points more likely to complete at least two years of college than an average person from a low-wealth family (about 70 percent versus 41 percent; see figure 1). In the same way, among families whose parents did not graduate from college, an average person from a high-wealth family is 26 percentage points more likely to be upwardly mobile than an average person from a low-wealth family (about 56 percent versus 30 percent). In other words, wealth is associated with significant advantage.

FIGURE 1

Wealth Is Strongly Associated with at Least Two Years of College Attainment

Share of youth who completed two or more years of college by age 25, after controlling for income and other factors at age 18, by family wealth at age 18



Source: Authors' tabulations of the Panel Study of Income Dynamics (PSID), waves 1989 through 2013.

Notes: Data are weighted using PSID household weights. Results are based on probit regression models that take account of family income, household composition (single parent, number of children, person is oldest child in household), race and ethnicity of household head (black, Latino, nonblack non-Latino), person's gender, year person turned age 18, and state-level unemployment rate. The attainment model also takes account of parents' educational attainment (all parents completed college, one parent did and one parent did not complete college, no parent completed college).

^a Dollar values are reported for reference using the 2013 family wealth distribution.

/ College attainment in a given wealth quartile differs from the high quartile at the 0.05/0.01 level. No differences are significant at only the 0.10 (*) level.

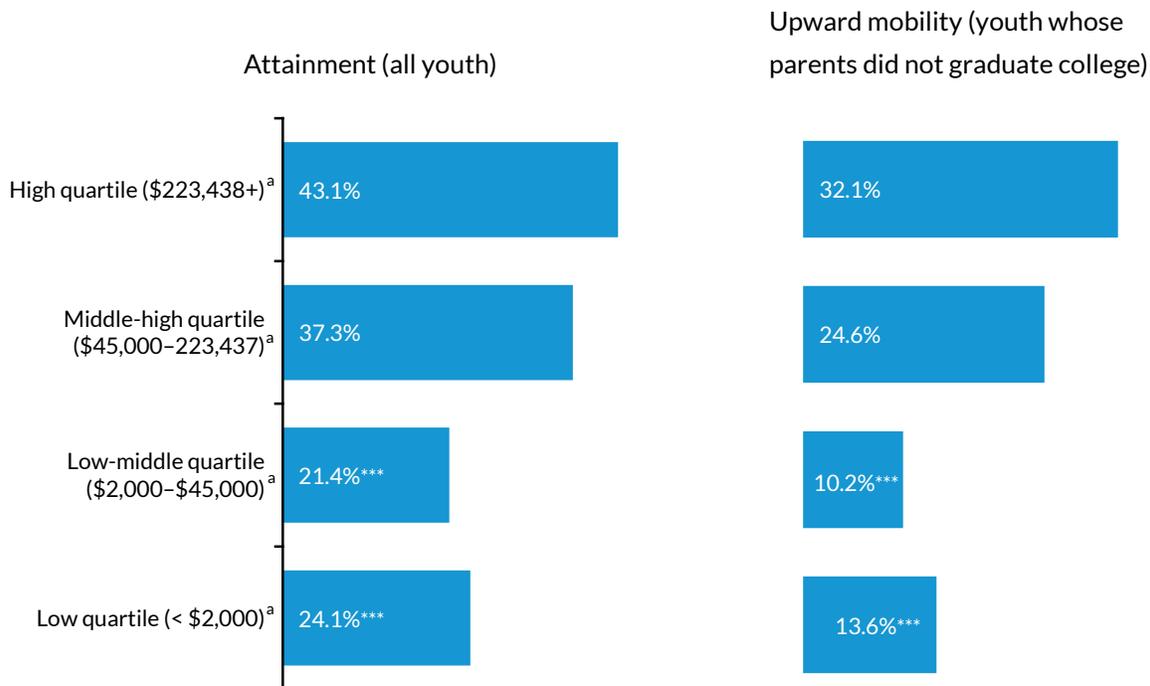
The chance of completing at least two years of college declines significantly for each wealth quartile. Students have a 70 percent chance of completing two years of college if their family is from the high-wealth quartile, a 57 percent chance if from the middle-high quartile, a 46 percent chance if from the low-middle quartile, and a 41 percent chance if from the low-wealth quartile.

Further, an average person from a high-wealth family is significantly more likely to complete four or more years of college by age 25 than an average person from a low-wealth family (figure 2). Wealth continues to play an important role in upward education mobility, too. Among young people whose parents did not graduate college, the chance of someone from a high-wealth family completing four or more years of college is roughly triple that of a similar person from a family with low-middle or low wealth (about 10–14 percent versus 32 percent). While we find slightly higher educational attainment among those in low- versus low-middle-wealth families, the differences are not statistically significant.

FIGURE 2

Wealth Is Also Strongly Associated with at Least Four Years of College Attainment

Share of youth who completed four or more years of college by age 25, after controlling for income and other factors at age 18, by family wealth at age 18



Source: Authors' tabulations of the Panel Study of Income Dynamics (PSID), waves 1989 through 2013.

Notes: Data are weighted using PSID household weights. Results are based on probit regression models that take account of family income, household composition (single parent, number of children, person is oldest child in household), race and ethnicity of household head (black, Latino, nonblack non-Latino), person's gender, year person turned age 18, and state-level unemployment rate. In the attainment model we also take account of parents' educational attainment (all parents completed college, one parent did and one parent did not complete college, no parent completed college).

^a Dollar values are reported for reference using the 2013 family wealth distribution.

*** College attainment in a given wealth quartile differs from the high quartile at the 0.01 level. No differences are significant at only the 0.10 (*) or 0.05 (**) level.

These results suggest that family wealth can help children complete college, even holding constant other characteristics such as family income and education. Wealth might provide the needed resources for families to get their children in and through college, or wealthier families may live in areas with better schools and social networks that help them get to college.

What about family income? If a youth's parents did not graduate from college, income is positively associated with completing both two and four years of college by age 25. If a youth's parents graduated from college, however, then income does not have an independent association. That is, if the parents have wealth and completed college the children likely will too regardless of income (appendix tables A.1 and A.2). Wealth alone is associated with college completion, but both income and wealth appear to be needed to break college barriers when parents did not graduate.

Conclusion

Family wealth is strongly associated with both higher educational attainment and upward educational mobility, suggesting that family wealth is an important factor in promoting greater educational achievement. This relationship between family wealth and educational attainment holds even when we take account of family income and other characteristics. The fact that children from low-wealth families are less likely to go to college has implications for long-run wealth inequality. Wealth inequality, which has grown in recent decades,³ will persist in subsequent generations as higher educational credentials are a key ingredient for upward economic mobility (Haveman and Smeeding 2006). America will continue to perpetuate its ivory towers of wealth because black and Hispanic families have far less wealth than white families. Further, the findings suggest that policymakers should consider family wealth, not just income, in developing policies and programs aimed at the economic advancement of low- and moderate-income families.

US policy does little to encourage low- and middle-income families to save for their children's education. The 529 and Coverdell college savings accounts in place today encourage and subsidize saving only among families whose incomes are high enough to generate federal tax liabilities. They also provide a greater subsidy for higher-income families who face higher marginal tax rates. One option is to redesign the 529 program to provide benefits down the income scale, such as by providing an initial minimum deposit for all children with larger deposits for low- and middle-income children—a key element of children's savings accounts. This support would ensure that all students thinking about going to college have some savings.

Beyond savings accounts, most policies designed to increase participation in higher education put money in people's hands when it is time to pay for college. In other words, they augment incomes to relieve financial pressures. The federal Pell grant program, which provides billions of dollars each year to help low- and moderate-income students pay for college, is the largest among them.⁴ But Pell grants do not address the more fundamental issues that may be related to the differences we see based on family wealth. For example, it is difficult for students and families to know in advance how much financial aid they will receive. The Pell grant program does not provide the financial security and the motivation for preparing for college that family wealth provides. Providing a promise when children are in middle school or high school that the money will be available when they graduate from high school would make this financial aid a better substitute for family wealth.

Wealth is important for educational attainment and upward educational mobility, even after controlling for income. Greater understanding of what differentiates families with similar incomes who do and do not accumulate wealth and the role that wealth plays in their children's lives would further support the design of policies to diminish educational attainment gaps associated with differences in family wealth.

Appendix A: Regression Model Results

TABLE A.1

Dependent Variable: Has Two Years or More of College Education at Age 25

Family characteristics at age 18	All youth	Youth whose parents did not graduate college ^a
Family wealth distribution including home equity (omitted: top 25 percent)		
Bottom 25 percent	-0.291 (0.062) ^{***}	-0.259 (0.080) ^{***}
Between 25th and 50th percentiles	-0.243 (0.054) ^{***}	-0.242 (0.074) ^{***}
Between 50th and 75th percentiles	-0.129 (0.050) ^{**}	-0.114 (0.075)
Log family income	0.024 (0.026)	0.096 (0.035) ^{***}
Female	0.102 (0.036) ^{***}	0.122 (0.041) ^{***}
Single-headed family	-0.002 (0.048)	0.045 (0.049)
Race and ethnicity (omitted: nonblack, non-Latino)		
Head of family is black	0.019 (0.045)	0.066 (0.046)
Head of family is Latino	0.039 (0.087)	0.081 (0.080)
Number of other children under age 18 in the family	-0.065 (0.016) ^{***}	-0.064 (0.018) ^{***}
Surveyed student is the oldest child	0.055 (0.036)	0.063 (0.042)
Parents' education level (omitted: neither parent graduated college)		
All parents graduated college	0.472 (0.073) ^{***}	-
One parent did and one parent did not graduate college	0.266 (0.059) ^{***}	-
State unemployment rate	-0.006 (0.020)	0.008 (0.023)
Year fixed effects	Yes	Yes
Observations	1,769	1,367

Source: Authors' tabulations of the Panel Study of Income Dynamics, waves 1989 through 2013.

Notes: Estimates are from probit regressions and show average marginal effects. Regressions also included dummy variables to control for whether family income, parents' educational level, and state are missing. Robust standard errors are clustered at the family level. Observations that perfectly predict the outcomes are dropped from the probit.

^a Parents include grandparents when parents are not present in the household.

/ College attainment differs from the omitted variable at the 0.05/0.01 level. No differences are significant at only the 0.10 (*) level.

TABLE A.2

Dependent Variable: Has Four Years or More of College Education at Age 25

Family characteristics at age 18	All youth	Youth whose parents did not graduate college ^a
Family wealth distribution including home equity (omitted: top 25 percent)		
Bottom 25 percent	-0.189 (0.062) ^{***}	-0.186 (0.067) ^{***}
Between 25th and 50th percentiles	-0.217 (0.051) ^{***}	-0.224 (0.061) ^{***}
Between 50th and 75th percentiles	-0.058 (0.052)	-0.080 (0.063)
Log family income	0.030 (0.019)	0.060 (0.028) ^{**}
Female	0.114 (0.035) ^{***}	0.078 (0.031) ^{**}
Single-headed family	0.013 (0.046)	0.036 (0.035)
Race and ethnicity (omitted: nonblack, non-Latino)		
Head is black	-0.091 (0.050) [*]	-0.019 (0.038)
Head is Latino	-0.042 (0.079)	0.007 (0.061)
Number of other children under age 18 in the family	-0.027 (0.015) [*]	-0.011 (0.013)
Oldest child	0.054 (0.036)	0.038 (0.032)
Parents' education level (omitted: neither parent graduated college)		
All parents graduated college	0.485 (0.066) ^{***}	-
One parent did and one parent did not graduate college	0.242 (0.053) ^{***}	-
State unemployment rate	0.004 (0.019)	0.004 (0.018)
Year fixed effects	Yes	Yes
Observations	1,752	1,352

Source: Authors' tabulations of the Panel Study of Income Dynamics, waves 1989 through 2013.

Notes: Estimates are from probit regressions and show average marginal effects. Regressions also included dummy variables to control for whether family income, parents' educational level, and state are missing. Robust standard errors are clustered at the family level. Observations that perfectly predict the outcomes are dropped from the probit.

^a Parents include grandparents when parents are not present in the household.

*/**/*** College attainment differs from the omitted variable at the 0.10/0.05/0.01 level.

Appendix B: Literature and Contribution

Differences in educational attainment by family background are stark, even when controlling for high school achievement levels. For example, after 10 years, 41 percent of students from low-socioeconomic status families (as measured by parents' education, occupations, and family income) with 10th grade math scores in the highest quartile have earned bachelor's degrees, compared with 53 percent of those with similar test scores from middle-socioeconomic status families and 74 percent of those with similar test scores from high-socioeconomic status families (Kena et al. 2015, figure 5).

The association between family income and both college enrollment immediately after high school and longer-term educational attainment is well documented. In 2004, 48 percent of recent high school completers from the lowest family income quartile enrolled in college, compared with 63 percent from the middle two income quartiles and 80 percent from the highest income quartile. All three enrollment rates had increased by 2014, but the differences among family income groups remained: 58 percent of students from the lowest family income quartile, 64 percent from the middle two income quartiles, and 84 percent from the highest income quartile (Snyder, de Brey, and Dillow 2016, table 302.30).

Scholars have paid less attention to the association between family wealth and postsecondary educational attainment, partly because of the paucity of data. However, dramatic increases in home values during the late 1990s and early 2000s and the subsequent sharp decline provide an opportunity to study the impact of exogenous changes in housing wealth on college enrollment. Several studies find that increases in parents' housing wealth (as measured by home equity) in the four years preceding children's high school graduation significantly increases college enrollment among children from low- and middle-income families (Johnson 2011; Lovenheim 2011 a, b; Lovenheim and Reynolds 2013). Declines in home equity apparently have an even larger, negative impact on enrollment. Changes in housing wealth also measurably affect college choice; increases in housing wealth make enrollment in four-year institutions more likely. Moreover, students from low- and middle-income families are more likely to graduate with bachelor's degrees when their families' housing wealth increases and is readily accessible (e.g., through home equity lines of credit). The impact of changes in housing wealth on higher-income families is much smaller.

Other evidence of the independent role of wealth in educational attainment comes from the UK, where Karagiannaki (2012) finds that controlling for parental education and income, parental wealth is positively associated with outcomes in early adulthood, including employment, earnings, and homeownership, in addition to educational attainment. This study finds that degree attainment is more strongly associated with housing wealth than financial wealth, although both are significant.

This brief uses data that allow examination over a longer period (1989 through 2013) on the relationship between family wealth and years of education completed. We are able to confirm a strong relationship between family wealth and educational attainment controlling for income, other demographic characteristics, and, in some cases, high school achievement level. We analyze total wealth, not relying exclusively on housing wealth.

Our study also relates to recent research on the relationship between wealth, income and postsecondary achievement using both the PSID and the Health and Retirement Survey (Haider and McGarry 2015). The authors find a strong association between the financial resources of parents and the postsecondary schooling of their children (both attendance and completion of four years of college). Nonetheless, our study moves beyond this relationship to investigate the question of upward mobility. Focusing only on young people whose parents do not have any degree beyond high school, we find a significant relationship between wealth and children moving beyond the level of education their parents attained. We do not limit the definition of a college degree to four-year degrees, but also examine two-year degrees.

Notes

1. We measure high-wealth families as those in the top quartile of the wealth distribution (above \$223,436 in the most recent 2013 wealth data) and low-wealth families as those in the bottom quartile of the wealth distribution (below \$2,000 in 2013).
2. Educational attainment is measured between 1996 and 2013.
3. See Signe-Mary McKernan, Caroline Ratcliffe, C. Eugene Steuerle, Emma Kalish, and Caleb Quakenbush, “Nine Charts about Wealth Inequality in America,” Urban Institute, February 2015, <http://apps.urban.org/features/wealth-inequality-charts/>.
4. Tax credits (e.g., American Opportunity Tax Credit, Lifetime Learning Tax Credit) and student loan interest deductions are other examples, but they operate on a much smaller scale.

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