The Economic Returns to Post-Secondary Education: Facts, Trends, and Ideas for Moving Forward

Access Academies Board of Directors
November 16, 2018

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*These are my own views, and not necessarily the views of the Federal Reserve Bank of St. Louis, Federal Reserve System, or the Board of Governors
The Demographics of Wealth

- First published in 2015
  - Education
  - Race
  - Age

- Updated in 2018
  - Adds education of respondent’s parents
  - New Center report on White Working Class

- Surveys over 6,000 families every three years; considered the “gold standard” in family wealth research

- Unless otherwise noted, all data by Emmons, Kent, and Ricketts, 2018, based on the Fed’s 2016 Survey of Consumer Finances
What You **Cannot** Change: Your Age / Year of Birth

Real Median Family Net Worth, Age/Year of Birth
*Thousands of 2016 Dollars*

- **Old (62+)**
- **Middle-aged (40-61)**
- **Young (<40)**

Source: Federal Reserve Board, Survey of Consumer Finances.
What Else You *Cannot* Change: Your Race and Ethnicity

**Real Median Family Net Worth, By Race/Ethnicity**

*Thousands of 2016 Dollars*

- White, non-Hispanic
- Other
- Black
- Hispanic, all races

*Source: Federal Reserve Board, Survey of Consumer Finances.*
What You CAN Change: Your Education

Real Median Family Net Worth, By Education

Thousands of 2016 Dollars

Source: Federal Reserve Board, Survey of Consumer Finances.
What’s Driving What?

EDUCATION  WEALTH

St. Louis Fed
In General, College Really Pays...

- College is associated with:
  - Higher income and wealth
  - Better health
  - A higher likelihood of being a homeowner
  - A higher likelihood of being married or cohabitating
  - A lower risk of falling behind on loan payments

- College income boost: 69%; post-grad income boost: 200%
- College wealth boost: 201%; post-grad wealth boost: 242%

34% of families now headed by someone with at least a 4-year degree, up from 23% since 1989.
Income Returns on College Have Been Steady Across Age Cohorts

Change in Expected Income
Four-Year Degree Families

<table>
<thead>
<tr>
<th>Year</th>
<th>White, Non-Hispanic</th>
<th>Black</th>
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<tbody>
<tr>
<td>1930s</td>
<td>72%</td>
<td>76%</td>
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<tr>
<td>1940s</td>
<td>64%</td>
<td>73%</td>
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<tr>
<td>1950s</td>
<td>57%</td>
<td>74%</td>
</tr>
<tr>
<td>1960s</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>1970s</td>
<td>60%</td>
<td>43%</td>
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SOURCES: Federal Reserve Board’s Survey of Consumer Finances and authors' calculations.
NOTE: Percent change is relative to nongrad families of the same race born in the same decade.
Income Returns on Prof/Grad Degrees are Stronger and Also Steady Across Age Cohorts

Change in Expected Income
Postgraduate Degree Families

<table>
<thead>
<tr>
<th>Decade</th>
<th>White, Non-Hispanic</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930s</td>
<td>108%</td>
<td></td>
</tr>
<tr>
<td>1940s</td>
<td>95%</td>
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<tr>
<td>1950s</td>
<td>81%</td>
<td>125%</td>
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<tr>
<td>1960s</td>
<td>92%</td>
<td>92%</td>
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<tr>
<td>1970s</td>
<td>80%</td>
<td>108%</td>
</tr>
<tr>
<td>1980s</td>
<td>54%</td>
<td>73%</td>
</tr>
</tbody>
</table>

SOURCES: Federal Reserve Board’s Survey of Consumer Finances and authors’ calculations.
NOTE: Percent change is relative to nongrad families of the same race born in the same decade.
However, Wealth Returns on College Vary More, and Are Diminishing

Change in Expected Wealth
Four-Year Degree Families

SOURCEs: Federal Reserve Board’s Survey of Consumer Finances and authors’ calculations.
NOTE: Percent change is relative to nongrad families of the same race born in the same decade.
Wealth Returns on Prof/Grad Degrees Are Generally Stronger, but Diminishing Significantly Across Cohorts

Source: Federal Reserve Board's Survey of Consumer Finances and authors' calculations.
Note: Percent change is relative to nongrad families of the same race born in the same decade.
Combining All Age Cohorts, Overall Wealth Returns are Positive but Vary by Race and Education Level

Predicted Wealth by Education Level and Race, Baseline Post-Racial Model

Index = Per $100 of College-Educated White Family's Wealth

Source: Federal Reserve Survey of Consumer Finances and author's calculations.
Summary of Research Findings
(Emmons, Kent, and Ricketts, 2018; available at stlouisfed.org/hfs)

1. Younger, less-educated and non-white families are, generally, struggling. The Great Recession exacerbated trends already underway.

2. Overall, education really pays.

3. Income returns on education are positive and steady across age cohorts.

4. Wealth returns on education vary and are diminishing across age cohorts; declining college wealth premiums may be due to luck of your birth year; financial liberalization; and rising college costs (leading to more and greater student loans).

5. College is not the great equalizer, but still well worth it.
For Parents and Schools: Build a Rainy-Day Fund

An unexpected expense of $400 would prompt well over 40 percent of all families to borrow funds, sell something, or simply not pay (Federal Reserve, 2015-2018)

- The ability to borrow $500 in a financial pinch may do as much to reduce material hardship as tripling a family’s income (Mayer and Jencks, 1989)

- An increase in family income by $3,000 during a child’s first five years of life is associated with 20 points higher on the SAT and nearly 20% higher incomes later in life (Putnam, 2015)

- Having liquid assets, even if less than $2,000, is associated with lower incidence of various financial hardships, such as missed payments, foregone medical care, and food insecurity. Also, families with nonretirement savings of between $250 and $749 are less likely to be evicted, miss a housing or utility payment, or receive public benefits when income disruptions occur (Urban Institute, 2011, 2016)
For Students:

1. Focus on college completion, not just access, ideally at a four-year, not-for-profit, public or private university. “The most expensive degree is the one you don’t finish.”

2. Reduce student loans burdens as much as possible; try to build a rainy day fund.

3. Encourage parents and children to start saving for college as early in life as possible. [https://prosperitynow.org/issues/childrens-savings](https://prosperitynow.org/issues/childrens-savings)


5. Enlist non-profit organizations such as the Scholarship Foundation of St. Louis.
For Profit Colleges Outcomes? 
And Does Your College Major Matter? 
(Compiled by Richard Reeves, Brookings Institution, 2018)

How Do Outcomes Among For-Profit Colleges Compare to Others? Students who attend for-profit colleges generally have worse outcomes than those who attend public or non-profit institutions, according to Luis Armona, Rajashri Chakrabarti, and Michael F. Lovenheim. Isolating a causal effect is difficult, however, since students at for-profit schools generally come from more disadvantaged backgrounds. Using administrative data and a new instrument, the authors predict the causal impact of both four-year and two-year for-profit college attendance on a range of outcomes. They find that relative to public attendees, four-year for-profit attendees have more loans, higher loan amounts, higher default rates, lower graduation rates, and poorer employment and earnings outcomes. Results are similar for two-year for-profit attendees, but their estimates are less precise.

Does Your College Major Matter? It’s a question perplexing many of us: What difference does it make where you go to college, or what major you select? Using matched administrative data, Rajashri Chakrabarti and Michell Jiang set out to answer this question, in terms of employment and earnings, both medium and long term, and upward economic mobility. Selective schools produce better earnings than non-selective schools, private not-for-profit schools do better than public and for-profit schools, and STEM and business majors beat out arts and vocational majors. They also find an increased selectivity premium in the long-term, which the wage premium of selective schools over nonselective schools almost doubles. There are inequality implications here too: selective schools decrease the earnings gap between the top and bottom family-income terciles by 43 percent, while for-profit schools widen the gap by 117 percent.
“Among the factors correlated with mobility discussed above, improvements in the quality of education have the clearest causal effects on upward mobility.

For example, in a study that tracked more than 1 million children from childhood to early adulthood, we find that better teachers — as measured by test-score based value-added metrics — substantially increase students’ earnings and college attendance rates. We estimate that an excellent teacher generates more than $1.4 million of earnings gains for a single classroom of students over their lives.”

— Chetty, Friedman, & Rockoff, 2014

“Schools—and policies that influence their optimal functioning—are transformative agents that either provide or deprive children of the opportunity to reach their full potential.

These equal educational opportunity policies were instrumental in the making of a growing black middle class. The evidence shows that the footprints of “paths toward upward mobility are preceded by access to high quality schools beginning in early childhood through 12th grade. These school reforms expanded on-ramps to poor and minority children to get on that path.

Evidence on the long-term productivity of education spending demonstrates that equal education policy initiatives can play a pivotal role in reducing the intergenerational transmission of poverty.”

— Rucker Johnson, 2017