

# Conclusion: After College

**H**aving reviewed the paths along which Americans proceed through undergraduate education, this primer concludes by reviewing evidence about how the lives of those who engage with college differ from the lives of those who do not. It is worth noting at the outset that differences scholars have found between those who attend college and those who don't should not all be attributed to the effects of the college experience. It is obvious that the people who attend and especially those who complete college were significantly different in many ways before they enrolled. These preexisting differences affect postcollege outcomes, and we need to remind ourselves to distinguish what college *did* for students from how well it did in picking students who would succeed, in college and in life, even without the college experience.

Nonetheless, college affects the lives of graduates in at least three important ways:

1. It increases their social and civic contributions;
2. It improves personal and family well-being; and
3. It strengthens their economic circumstances.

In the current climate, the economic value (or “payoff”) of college often receives outsized attention, but people’s lives, and our democracy, would be worse off in many ways without other positive outcomes associated with college education.

## SOCIAL AND CIVIC CONTRIBUTIONS

Evidence indicates that people with more experience and success in higher education are more likely than others to give back to their communities. For example, a recent study found that over a period of one year, 42 percent of those who earned at least a bachelor’s degree spent time volunteering, compared with 29 percent of those who earned an associate degree or some college

credit. Meanwhile, 17 percent of high school graduates and 9 percent of those who did not complete high school volunteered over the same period, indicating how the rate of volunteerism rises with higher education levels.<sup>88</sup>

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A more direct measure of civic—in contrast with broader community—engagement is voting. The voting rate of twenty-five-to forty-four-year-old baccalaureate degree-holders in 2012 was 1.7 times higher than the voting rate of high school graduates in the same age group (73 percent to 42 percent).<sup>89</sup> Again, correlation does not imply causation;

but careful work by scholars like Thomas Dee and Philip Oreopoulos has presented evidence of a causal link between higher education levels and higher voter participation.<sup>90</sup>

## PERSONAL AND FAMILY WELL-BEING

Data on tobacco use reveal a striking connection between education level and personal well-being. People with higher levels of education are less likely to smoke—an effect that has persisted over decades. By 2012, only 8 percent of individuals with a bachelor’s degree or higher smoked, compared with 25 percent of high school graduates. Further, among smokers with some college experience, almost half tried to stop smoking, contrasted

88. Sandy Baum, Jennifer Ma, and Kathleen Payea, *Education Pays 2013: The Benefits of Higher Education for Individuals and Society* (New York: College Board, 2013), <https://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report.pdf>.

89. Ibid.

90. Thomas S. Dee, “Are there Civic Returns to Education?” *Journal of Public Economics* (August 2004): 1697–1720; and Kevin Milligan, Enrico Moretti, and Philip Oreopoulos, “Does Education Improve Citizenship? Evidence from the United States and the United Kingdom,” *Journal of Public Economics* 88 (2004): 1667–1695.

with 11 percent of those with high school diplomas. As in the study of voting, there is also strong evidence supporting a causal element in this relationship.<sup>91</sup>

Researchers have also found that people with higher levels of college attainment are more likely to exercise regularly and be less obese than those with less education. One report even indicates that these effects on health-supportive behaviors are caused in part by cognitive changes resulting from higher levels of education.<sup>92</sup>

The relationship between education and family well-being is also revealed by evidence that highly educated women are more likely to spend more time with their

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children, with likely effects on their children's well-being and success in life. Employed mothers with bachelor's degrees spend about 51 percent more time on their children's activities than do employed mothers who are

91. Damien de Walque, *Education, Information, and Smoking Decisions: Evidence from Smoking Histories, 1940–2000* (Washington, D.C.: The World Bank, 2004); and Franque Grimard and Daniel Parent, "Education and Smoking: Were Vietnam Draft Avoiders also More Likely to Avoid Smoking?" *Journal of Health Economics* 26 (5) (2007): 896–926.

92. Baum, Ma, and Payea, *Education Pays 2013*.

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high school graduates (113 minutes versus 75 minutes per day).<sup>93</sup>

#### FINANCIAL WELL-BEING

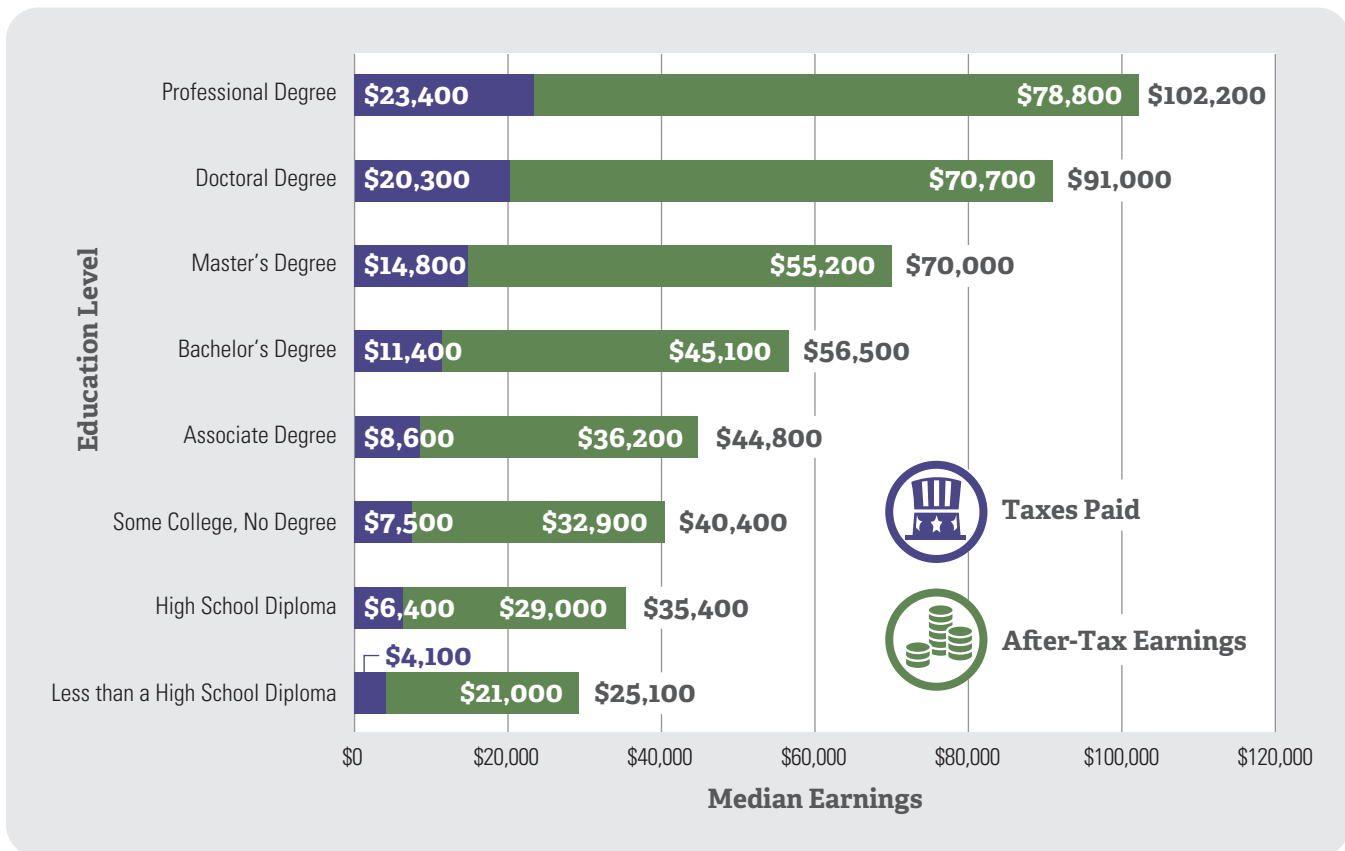
The data reported here by no means exhaust the evidence of substantial "nonmonetary" effects of higher levels of education on personal, family, and civic well-being. As noted above, it is particularly important to underline these points in an era in which the benefits of education on financial well-being receive such great emphasis. Nonetheless, we must also briefly review the evidence on how investments in higher education influence people's economic well-being.

It has now been more than fifty years since the economists Gary Becker and Jacob Mincer began to estimate systematically the relationship between educational investments and workers' productivity and earnings. It is likely that this relationship between education and earnings has received more empirical documentation in more settings than any other finding in economics, and the evidence that educational investments yield a substantial return in economic terms that more than justifies their costs is very broadly accepted among economists.

Indeed, evidence for the United States indicates that the rate of return on investments in attending higher

93. Ibid.

**Figure W:** Median Earnings and Tax Payments of Full-Time Year-Round Workers Aged 25 and Older, by Education Level, 2011



**SOURCE:** Sandy Baum, Jennifer Ma, and Kathleen Payea, *Education Pays 2013: The Benefits of Higher Education for Individuals and Society* (New York: College Board, 2013), <https://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report.pdf>.

education has been higher in recent decades than it has ever been in the past, even without taking into account the many nonmonetary benefits noted above. The simplest way to characterize the economic return on higher education is through examining the *earnings premium*: the gap in wages between those with specified levels of education.

Figure W shows that the earnings of individuals in 2011 increased according to their levels of education. For example, the earnings of the average four-year college graduate exceeded those of a typical high school graduate by more than \$21,000. Compounded over a working life, the sum of this earnings difference greatly exceeds the cost of paying for college. Earnings premiums attached to higher education attainment levels below the

baccalaureate level are also substantial, although they are smaller than those premiums fixed to bachelor's degrees.

It is important to introduce two cautions about numbers like these. First, they are averages, and averages can hide a great deal of variation. For example, about 16 percent of bachelor's recipients earn less than the average high school graduate, and for these graduates it is hard indeed to claim that higher education paid off, at least in monetary terms. Second, the economic return to higher education appears to be disproportionately higher for those who *complete* a particular higher education level than for those who drop out. With high dropout rates plaguing U.S. higher education, this is a grave warning. It does appear that, even allowing for high dropout rates, undergraduate higher education does pay off on average

in monetary terms, but it is a much closer call than it would be if completion rates were higher.<sup>94</sup>

## CLOSING

That everyone is entitled to their own opinions but not their own facts is a familiar saying. A great deal of public discussion about higher education is muddied by misstatements and confusion about relatively straightforward factual questions. In this primer, we have presented reliable facts and evidence and have documented their origins. This overview of the trends—demographic, economic, and technical—that will shape higher education over coming decades offers a starting point for deliberation about the issues and opportunities confronting higher education in the United States in the twenty-first century.

It is, of course, only a starting point. In particular, we would emphasize the data and analyses missing from these pages. We have not, for example, attempted to report on the actual production of college education: What are students expected to learn? What do we know about what they actually learn? Who are the faculty and what do they do? We will, however, address these questions and more in subsequent reports of the American Academy of Arts and Sciences' Commission on the Future of Undergraduate Education.

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94. Alan Benson, Raimundo Esteva, and Frank S. Levy, "Drop-outs, Taxes and Risk: The Economic Return to College under Realistic Assumptions," *Social Science Research Network* (2015), <http://dx.doi.org/10.2139/ssrn.2325657>.