

POSTSECONDARY

VALUE COMMISSION

THE MONETARY VALUE OF ECONOMIC AND RACIAL JUSTICE IN POSTSECONDARY EDUCATION: QUANTIFYING THE POTENTIAL FOR PUBLIC GOOD

EXECUTIVE SUMMARY

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TABLE OF CONTENTS

Executive Summary	1
The Monetary Value of Racial and Economic Justice	3
What if we were able to address persistent inequalities in educational attainment?	3
In the medium-to-long term, the gains associated with educational equity would outweigh the costs.	4
Eliminating student loan debt for the additional low-income credential holders would result in even more societal gains.	5
Closing field-of-study gaps could further narrow earnings gaps.	5
While educational equity alone will not solve societal inequality, it would make a big economic difference.	6
The Next Frontier: The Non-Monetary Benefits of Postsecondary Education.	7
The Strong Case for Educational Equity.	10
Endnotes.	11
References	13

EXECUTIVE SUMMARY

Many Americans would agree that all people should have equal educational opportunity and equal pay for equal work. And yet, inequality in postsecondary education access, college completion, and post-college outcomes such as wages stubbornly persists, along with the impression that achieving equal outcomes would be too expensive and would take too much time to accomplish. But what if we were able to set these objections aside and make postsecondary education more equitable?

A thought experiment that we conducted in partnership with the Postsecondary Value Commission demonstrates that equality in postsecondary education would have considerable value to society.

In fact, the United States loses more money by not achieving equal educational outcomes than it would spend by investing in educational equality. While equalizing educational attainment would be costly and time-intensive, balancing the costs with the potential societal benefits shows that an investment in postsecondary equality is money well spent.

To estimate the costs and benefits to society of greater equity in postsecondary education, we simulated the impact of increased postsecondary attainment on various racial, economic, and gender gaps.¹ We explored what the world might look like if educational attainment were made more equal by race/ethnicity and economic status²—that is, if all socioeconomic groups had levels of education as high as those of the middle, upper-middle, and upper classes,³ and if all racial/ethnic groups had levels of education at least equivalent to those of the White majority.

Since the mid-1980s, postsecondary education and training has become the most generally accepted pathway to economic opportunity in the United States. And yet, US higher education is highly stratified, with outcomes that vary by socioeconomic status as well as by race, ethnicity, and gender.⁴ As a result, postsecondary education plays a large role in maintaining and expanding economic inequality in society. Economists estimate that 60 to 70 percent of the growth in earnings inequality between 1980 and 2005 was due to increases in the college earnings premium.⁵ If nothing changes, earnings inequality that is tied to differences in attainment will continue to grow for the foreseeable future.⁶

Because higher education plays a growing part in the problem of American economic and racial/ethnic inequality, it also needs to be part of the solution. Of course, there are limits to the ability of education to achieve justice by gender, class, and race/ethnicity. Equal educational opportunity cannot fully compensate for persistent wage gaps by race/ethnicity and gender in our labor markets, erase huge wealth gaps created through centuries of oppression and discrimination, or single-handedly dismantle structural inequality. But educational equity would have significant monetary and nonmonetary value to individuals and society in both the public and private spheres of American life.

Conversely, by allowing postsecondary inequality to persist, society is losing out on considerable economic potential related to such changes as increased tax revenue and GDP; reduced criminal justice expenditures, public health expenditures, and public assistance program expenditures; and smaller gaps in earnings (and, thereby, potential cumulative savings, which contribute to wealth accumulation). And that's without accounting for the many nonmonetary benefits associated with increased levels of educational attainment, such as improved health behaviors, reduced crime, more robust civic engagement, greater disinclination toward authoritarian leadership, and increased happiness.

The top-line finding of our analysis is that equalizing postsecondary educational attainment by economic status and race/ethnicity would require an **initial public investment of \$3.97 trillion**. Once achieved, that level of attainment would produce **annual societal gains of \$956 billion**. Eliminating the need for the new credential holders from low-income backgrounds to borrow student loans to finance their college education would require an additional initial investment of \$2.02 trillion but would lead to annual societal gains totaling \$1.18 trillion (\$222 billion more annually than if new low-income credential holders took on student debt).

Those gains would depend on substantial systemic reforms that would allow more low-income students and students from underrepresented racial/ethnic backgrounds to enroll and succeed in the postsecondary education system. Importantly, those kinds of changes wouldn't occur overnight. But if we could achieve the postsecondary attainment outcomes modeled in this thought experiment, it would make a considerable difference to individuals and the public within a single generation. Taking into account both the costs and the time needed to raise educational attainment levels across the population—which we estimate would be at least 34 years even in the best-case scenario—we would expect the annual monetary gains to society to begin exceeding the annual costs after more than nine years, and the cumulative gains to begin exceeding the cumulative costs after more than 17 years.

In purely monetary terms, an investment in postsecondary equity would pay for itself in a reasonable timeframe.

The fiscal case for the societal value of economic and racial/ethnic justice in postsecondary education is even stronger today than it was before COVID-19 devastated American life. Racially and economically marginalized communities have been the hardest hit by both the virus itself and by the economic downturn.⁷ At the same time, the workers with the most education—who also are more likely to be members of economically and racially/ethnically advantaged groups—have generally been the ones most protected, both economically and physically, by the ability to work from home.⁸ Meanwhile, police violence has inspired demonstrations for racial justice that have drawn critical attention to how structural racism is built into the very foundations of American society.

As higher education is forced to rethink its business model, it has the opportunity to more fully realize the potential of educational equity and recommit to enhancing the public good. Racial and economic justice need to be central goals, not secondary concerns or politically correct conceits unsupported by action, as postsecondary institutions reinvent themselves for the current era.

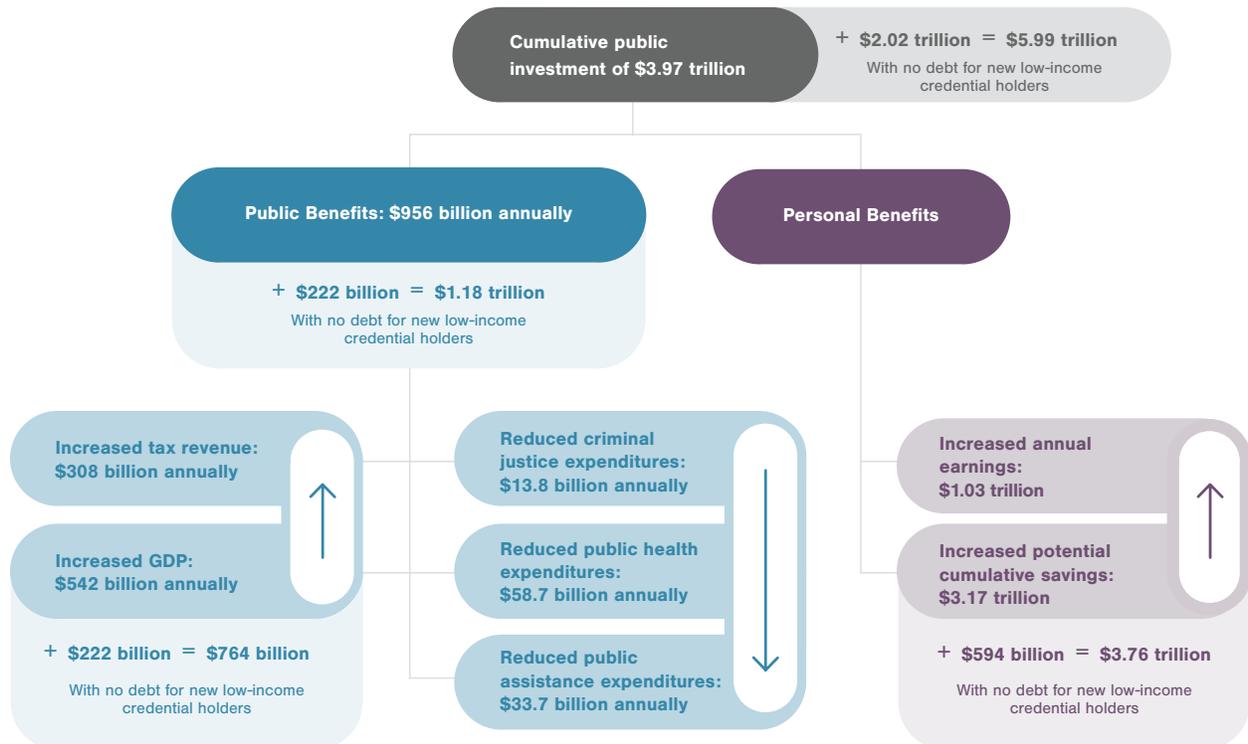
THE MONETARY VALUE OF RACIAL AND ECONOMIC JUSTICE

What if we were able to address persistent inequalities in educational attainment?

The United States has a chronic problem when it comes to educational equality. Even after decades of work, large differences in attainment remain between people of different income levels, as well as between different racial and ethnic groups. But what if educational outcomes were more equal by earnings and race/ethnicity? That is, what if attainment among non-earners and the bottom 40 percent of earners matched the attainment of the top 60 percent of earners? And what if educational attainment among all racial/ethnic groups was as high as among White adults?

If these increases in attainment were to occur, 58 percent of people would have an associate's degree or higher, compared to the 40 percent we presently see. The number of people with an associate's degree or higher would increase by 12.9 million low-income White, 10.2 million Latinx, 5.9 million Black, 498,000 Asian, and 462,000 AIAN/NHPI people, along with 457,000 people of other races and ethnicities.⁹

Meeting attainment targets would involve an initial public investment of at least **\$3.97 trillion**, plus costs associated with maintaining enrollment and completion at the higher levels necessary to sustain attainment goals.¹⁰ But it would result in significant gains at the individual and societal levels. The most direct gains would occur through increased individual earnings brought about by increased education, resulting in an aggregate annual earnings boost of \$1.03 trillion among new credential holders. By our estimate,¹¹ this earnings boost would generate monetary gains to society of **\$956 billion annually** as a result of gains and savings in a number of areas:

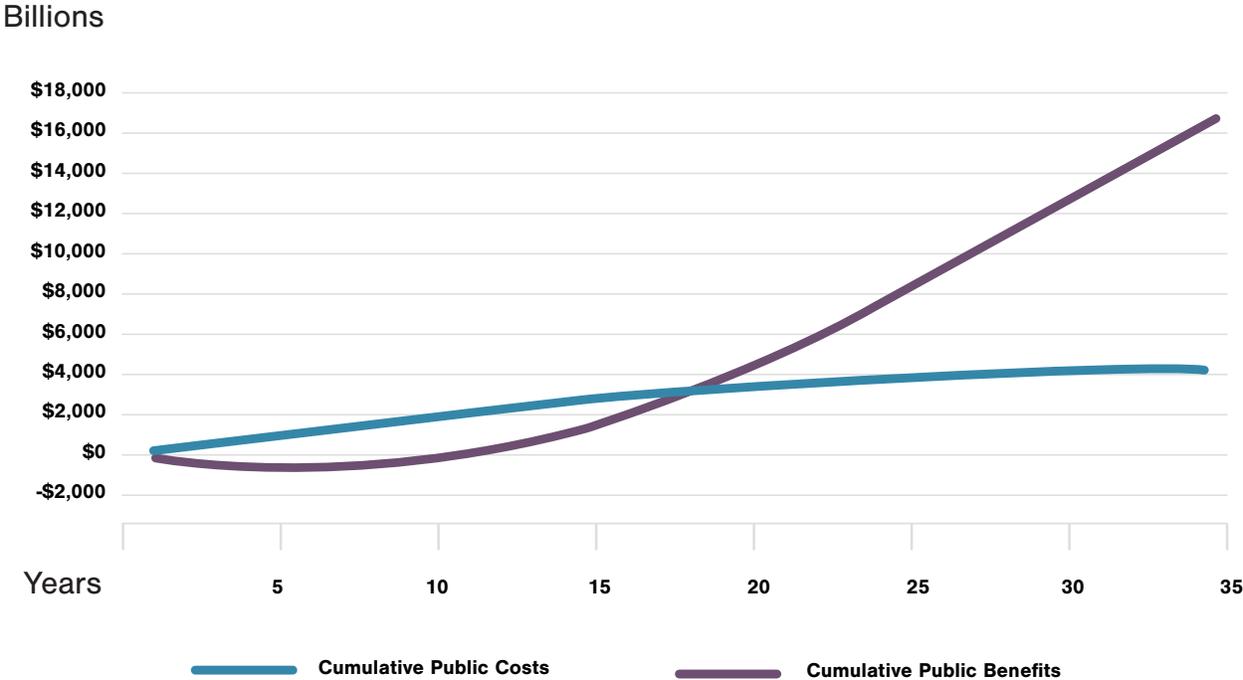


In the medium-to-long term, the gains associated with educational equity would outweigh the costs.

Our estimates indicate that the annual societal gains associated with educational equity would be considerable. But how long would it take for these annual gains to outweigh the associated costs?

Even in the best-case scenario, in which substantial systemic reforms allowed more low-income students and students from underrepresented racial/ethnic backgrounds to enroll and succeed in the postsecondary education system, we expect it to take at least 34 years to graduate enough people at all degree levels to reach our target attainment numbers. This estimate accounts for current education levels within the population, the size of graduating cohorts at each degree level, and constraints related to capacity, readiness, and efficiency.¹² Distributing the total costs over that 34-year period according to the changes needed to reach the target attainment numbers, we estimate that it would take more than nine years to generate an annual surplus and more than 17 years for the benefits to start outpacing the costs (Figure 1).

Figure 1. The cumulative benefits of educational equity could exceed the cumulative public costs associated with increased attainment in more than 17 years.



Source: Georgetown University Center on Education and the Workforce analysis based on compiled statistics described in Carnevale et al., “The Monetary Value of Economic and Racial Justice in Postsecondary Education,” 2021. Postsecondary Value Commission. <https://www.postsecondaryvalue.org/wp-content/uploads/2021/05/PVC-GUCEW-FINAL.pdf>

Eliminating student loan debt for the additional low-income credential holders would result in even more societal gains.

The role of educational debt in individuals' long-term economic outcomes has become increasingly relevant due to the growing need to finance college through debt. According to the College Board, on average, about 15 percent of college costs are paid through student borrowing.¹³ Federal student loan debt stood at about \$1.5 trillion in 2019, up from \$250 billion in 2004.¹⁴ Average cumulative debt at graduation for student borrowers with a bachelor's degree was \$31,790 in 2016, up from \$26,150 in 2000.¹⁵

For many people, reliance on student loans may be the only way to access a college education—and the use of loans varies startlingly by race/ethnicity and class. Among dependent students who graduated with a bachelor's degree in 2015–16, 68 percent held some student debt, but the share of students with debt varies by income: of those with parental incomes of \$120,000 or more, 59 percent held student loan debt, compared to 75 percent of graduates whose parents had incomes below \$35,000.¹⁶ In addition, four years after graduating from college, Black students have almost twice as much remaining student loan debt on average as their White peers.¹⁷ Because Black students take on more debt, the wage discrimination they face in the labor market makes repayment that much more of a financial struggle.

We know that eliminating student loan debt would have substantial implications for individuals. But how would society also benefit if we eliminated student loan debt for the additional low-income credential holders?

The cost of providing a debt-free college education for the additional low-income credential holders in our thought experiment would be another \$2.02 trillion.¹⁸ Adding these costs to the estimated \$3.97 trillion initial investment needed to equalize attainment would bring the total initial public investment to \$5.99 trillion, corresponding with annual societal gains totaling \$1.18 trillion (\$222 billion more than if new low-income credential holders took on student debt). These increases would lead to growth in GDP: Without the burden of loan payments, new low-income credential holders would have more money to spend in the economy and more money to save. As a result, their potential cumulative savings could grow by \$3.76 trillion (\$594 billion more than would occur if the new low-income credential holders took on student debt).

Closing field-of-study gaps could further narrow earnings gaps.

In addition to improving attainment, another area where postsecondary providers might have an impact (for example, through counseling, advising, and guided career pathways) is in the distribution of fields of study, which is fairly consistent across different racial/ethnic groups but varies greatly by gender at the associate's degree and bachelor's degree levels.¹⁹ Choice of field of study can have a significant impact on a person's potential earnings.

Closing gaps in field of study in addition to gaps in degree attainment would result in significant earnings changes across groups. For example, at the baccalaureate level, women are underrepresented relative to men in some high-paying fields of study: 10 percent of men major in engineering and 6 percent in computer science, compared to 2 percent of women who major in engineering and 1 percent in computer science.²⁰ With higher representation in these fields, women could potentially obtain higher earnings.

The exact nature of these changes, however, would depend on a complicated set of dynamics related to supply and demand, labor-market discrimination, current wage penalties in female-dominated fields, and a variety of other factors that affect wage gaps. For example, women tend to be concentrated in fields that have high social value but low wages.²¹ Encouraging them to pursue high-earning fields would create shortages in some fields that are currently female-dominated, such as education. Shortages in these fields could lead to increased demand and, perhaps, a related increase in wages. On the other hand, wages tend to fall as women enter male-dominated professions.²²

Regardless of pay, people should have the freedom to form their educational attainment goals and choose their field of study based on their talents, goals, and interests. Unfortunately, the evidence suggests that field choice is presently constrained by systemic and societal barriers, including socialization and discrimination.²³ Postsecondary providers could move the needle toward equity by ensuring that all students have equal opportunity to thrive in their fields of study, regardless of their gender, race/ethnicity, or socioeconomic status.

While educational equity alone will not solve societal inequality, it would make a big economic difference.

While more equitable outcomes in postsecondary educational attainment would have great value for both individuals and society, it would not completely level the playing field. In fact, the effects of equitable educational attainment would fall far short of the effects of directly addressing equity shortfalls in the labor market and closing gaps in personal wealth. To demonstrate this shortfall, we asked how much more society would gain if, after increasing educational attainment to meet our goals, workers' earnings also increased so that men and women of all races and ethnicities had earnings that at least matched those of White men with the same educational credentials. Even after reaching our target educational attainment and the projected public benefits of \$956 billion, we found that societal gains would still fall \$2.47 trillion short of what would be possible with equality in earnings.

The continued presence of significant gaps after equalizing educational attainment speaks to the powerful impact of factors such as labor-market discrimination. Even among people who have the same level of educational attainment, gaps in earnings still exist. On average, women earn less than men with the same credentials,²⁴ and Black and Latinx workers earn less than White workers with similar educational attainment.²⁵ Some of these gaps can be explained by differences in the occupations and fields favored by different groups; others are attributable to persistent wage discrimination that keeps disadvantaged groups from fully benefiting from their educational achievements.²⁶ These labor-market factors significantly limit the societal gains that are possible from increases in educational attainment.

Wealth gaps are another area in which educational equity could move the needle, but not come close to eliminating the disparities. Education affects an individual's ability to build wealth through savings, and for many people, it can make a huge difference: for the 90 percent of the population that holds less than one-fourth of all wealth, earnings may be the primary means of building wealth. Because higher education correlates with higher earnings, individuals with more education tend to have more potential cumulative savings. At the same time, an estimated 45 percent of wealth on average is intergenerational, bequeathed by one generation to another.²⁷ Within the current

generation, societal investments can affect only the portion of wealth that is not associated with inheritance—that is, the portion people can accrue through earnings.²⁸

When we examined the maximum amount of the median-to-median wealth gap that could be closed by equalizing the portion of wealth that is attributable to earnings, we found that equalizing the amount of wealth attributable to earnings would narrow, but not close, wealth gaps. If all groups had at least as much wealth from earnings as White men, aggregate wealth would increase by \$2.29 trillion, but large gaps would still remain.²⁹ For example, the personal wealth gap between White men and Latinx men (currently \$58,000) would narrow by \$32,000, leaving a \$26,000 gap favoring White men.³⁰

Our simulation shows that the societal value of closing gaps in the portion of wealth that can be affected by earnings would be significant. For the many people without wealth or savings, the increased earnings described in this experiment would represent a life-altering economic opportunity. At the same time, the intergenerational transfer of wealth contributes to gaps in educational and economic opportunity in a self-reinforcing cycle that perpetuates inequality for generations.³¹

While the effects of our thought experiment would go far toward creating a more egalitarian society, to fully address the disparities caused by historical injustices, we clearly would need to do more than close the portion of the wealth gap that can be affected by education and earnings. Postsecondary equity would have great societal value, but it would not, on its own, create a completely equal world.

THE NEXT FRONTIER: THE NON-MONETARY BENEFITS OF POSTSECONDARY EDUCATION

While this paper’s primary focus is on the monetary value to society of educational equity, we can’t ignore the importance of postsecondary education’s nonmonetary benefits—those outcomes that arguably cannot be measured in monetary terms. A comprehensive body of additional research is needed in order to model the nonmonetary societal returns associated with closing racial/ethnic and socioeconomic gaps in postsecondary education in the manner we have done here for monetary returns.

It is difficult, if not impossible, to measure the extent to which postsecondary equity would result in nonmonetary benefits to society, but research to date has established that educational attainment is associated with several kinds of nonmonetary benefits. The existing research has covered the following areas, which we summarize here:

1. Health Outcomes

Postsecondary education has a relationship with numerous positive health outcomes, including better self-reported health status, lower incidence of mortality, and a greater chance of healthy behaviors.³² Approximately 73 percent of working-age individuals with a bachelor’s degree and no further education self-reported a “very good” or “excellent” health status, compared to only 55 percent of individuals whose education ended with a high school diploma.³³ Life expectancy also appears to be positively correlated with educational attainment,³⁴ although the gains in life expectancy associated with higher education vary by race and ethnicity.³⁵

2. Crime and Incarceration

A substantial body of research indicates that education contributes to a safer society.³⁶ Estimates suggest that the “reduction in crimes” that result due to high school completion is 5.4 times higher than the reduction due to completing college, and that there are four fewer murders, 406 fewer assaults, and 648 fewer property crimes for every 100,000 bachelor’s degrees issued nationally.³⁷ That being said, education does not eliminate racial equity gaps in the criminal justice system: White male high school graduates without any further education are incarcerated at approximately half the rate of Black male college graduates.³⁸ Differences in incarceration rates also reflect differential treatment in the criminal justice system.³⁹

3. Family Structure

While decisions about family structure are intensely personal, it is worth noting that educational attainment is positively associated with marriage rates,⁴⁰ and it is inversely correlated with divorce.⁴¹ A relationship between educational attainment and fertility also exists, although it’s difficult to interpret that relationship as either a positive or a negative: researchers have estimated that more than half of the decline in fertility rates since the late 1800s can be attributed to education increases, and find that for both men and women, higher levels of education correspond with lower fertility.⁴²

4. Critical Thinking Skills

Research indicates that there is a link between educational attainment and the development of critical thinking skills,⁴³ the ability to synthesize information,⁴⁴ and the ability to make informed decisions.⁴⁵ Green and Riddell find that education appears to have a strong, positive association with literacy skills.⁴⁶ Similarly, Glaeser and colleagues posit that educational attainment empowers citizens to understand complex issues and provides them with the tools needed to interact effectively with their governments.⁴⁷

5. Civic Engagement

Multiple studies point to a positive relationship between educational attainment and civic engagement.⁴⁸ Verba and colleagues assert that education helps people develop the skills needed to distill political concepts,⁴⁹ and Hanushek believes that education fosters an interest in politics.⁵⁰ Lewis-Beck and colleagues argue that education increases individuals’ interest in and knowledge of political issues, thereby increasing political participation.⁵¹ Research has also established that better-educated individuals are more inclined to vote, follow elections, discuss politics, identify with a political group, and work on community issues,⁵² and may be more likely to volunteer.⁵³

6. Authoritarianism

One critical way in which higher education affects civic life in a democracy is by mitigating some people’s tendencies to hold authoritarian viewpoints. Our research shows an inverse relationship between higher levels of education and preferences for authoritarianism. It also indicates that certain types of postsecondary education play a stronger role in mitigating authoritarianism than others. Liberal arts majors are particularly disinclined to express authoritarian preferences and

attitudes when compared to majors in science, technology, engineering, and mathematics (STEM) or business-related majors.⁵⁴

7. Pluralistic Orientation

Among the learning outcomes that postsecondary institutions frequently aim to impart are those that prepare students for engagement with diversity and complexity, such as “intercultural knowledge and competence” and “ethical reasoning and action.”⁵⁵ One subset of these skills and dispositions—political and social tolerance—is generally associated with postsecondary educational attainment, particularly at the baccalaureate level.⁵⁶ Postsecondary education has also been shown to promote “egalitarian racial attitudes,” although this effect does not always translate into support for racially egalitarian policies.⁵⁷ There is also evidence that learning environments that promote meaningful engagement with diversity can succeed in instilling “a pluralistic orientation.”⁵⁸

8. Agency and Empowerment

In general, people with higher levels of education tend to have a greater sense of empowerment and control over their lives. Researchers have theorized that this greater sense of control leaves them less prone to feel threatened by difference and more tolerant of those unlike themselves.⁵⁹

9. Happiness

Evidence on the relationship between educational attainment and happiness is somewhat mixed and can be difficult to interpret definitively due to its subjective nature.⁶⁰ Blanchflower and Oswald note a positive correlation, independent of income, between educational attainment and happiness levels in the United States, but note that Americans with both high and low levels of education have experienced downward trends in self-reported happiness levels since the 1970s.⁶¹ Oreopoulos and Salvanes find that college graduates are two percentage points more likely than high school graduates to report that they are happy.⁶²

In sum, postsecondary education has many positive outcomes that cannot be adequately measured in monetary terms. The degree to which these outcomes constitute private versus public benefits is an open question. The same can be said of the effect that economic and racial justice in postsecondary education would have on society. Future research should establish a framework for distinguishing between private and public benefits and a way to measure the impact that closing postsecondary learning gaps would have on both.

THE STRONG CASE FOR EDUCATIONAL EQUITY

Despite its limitations as a lever for equality in society, equitable educational attainment would have great societal value, both monetary and nonmonetary. If we consider the potential societal gains alongside the investments required to raise educational attainment among underserved groups, the case for racial and economic justice in postsecondary education is clear.

With the necessary investments, higher education could be an effective lever for advancing racial and economic justice in society—partly because there is simply so much inequality to be eradicated in the current postsecondary system. Addressing the disparities in postsecondary education would be an investment with high monetary returns for society, in addition to the nonmonetary gains associated with educational attainment.

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ENDNOTES

- 1 The full results of this investigation, including extensive discussion of our methodology, are available in Carnevale et al., “The Monetary Value of Economic and Racial Justice in Postsecondary Education,” 2021. Postsecondary Value Commission. <https://www.postsecondaryvalue.org/wp-content/uploads/2021/05/PVC-GUCEW-FINAL.pdf>
- 2 This thought experiment is bound by a number of empirical and analytical constraints, which are discussed in detail in the full report.
- 3 Here, we define “the middle, upper-middle, and upper classes” as those with earnings within the top 60 percent of all workers.
- 4 Carnevale et al., *The Merit Myth*, 2020.
- 5 Goldin and Katz, “Long-Run Changes in the Wage Structure,” 2007; also see Autor, “Skills, Education, and the Rise of Earnings Inequality among the ‘Other 99 Percent,’” 2004.
- 6 Carnevale et al., *The Unequal Race for Good Jobs*, 2019.
- 7 North, “Every Aspect of the Coronavirus Pandemic Exposes America’s Devastating Inequalities,” 2020.
- 8 Carnevale and Fasules, “Who’s Working from Home,” 2020.
- 9 We recognize that specific Asian subgroups face educational and economic disparities that are not reflected in the aggregate analysis, but the data did not allow for disaggregation at the Asian subgroup level.
- 10 This estimate includes the cost of increasing students’ educational attainment by the number of levels necessary to meet new attainment goals, as well as adjustments in spending needed to increase graduation rates to achieve the attainment goals.
- 11 Methods and assumptions are documented in detail in Carnevale et al., “The Monetary Value of Economic and Racial Justice in Postsecondary Education,” 2021. Postsecondary Value Commission. <https://www.postsecondaryvalue.org/wp-content/uploads/2021/05/PVC-GUCEW-FINAL.pdf>
- 12 The time and cost estimates in this analysis cover only the additional education necessary for adults ages 25 to 64 to achieve the targeted attainment levels. They do not include the costs of maintaining present attainment levels among this population.
- 13 Looney and Lee, “Parents Are Borrowing More and More to Send Their Kids to College,” 2018.
- 14 Domestic Policy Council and Council of Economic Advisers, *Taking Action*, 2014; Miller et al., “Addressing the \$1.5 Trillion in Federal Student Loan Debt,” 2019.
- 15 Amounts are in 2018–19 dollars as reported in the National Center for Education Statistics, Digest of Education Statistics Tables, Table 331.95, 2019.
- 16 Baum et al., *Trends in Student Aid 2019*, 2019.
- 17 Scott-Clayton and Li, “Black-White Disparity in Student Loan Debt More than Triples after Graduation,” 2016.
- 18 This calculation includes the estimated principal and interest of student loans for the additional low-income credential holders. For the purposes of this thought experiment, we made simplified assumptions about student loan debt—specifically, that student debt would involve a standard 10-year repayment period with interest rates of 4 percent for undergraduate student loans and 7 percent for graduate loans. At this stage in our analysis, we consider the costs associated with these loans to be covered by public expenditures rather than assumed by low-income credential recipients. We assume that the money that additional low-income credential holders would have spent on loan payments would instead be directed toward consumption and potential cumulative savings.
- 19 See Tables 16 and 17 in Carnevale et al., “The Monetary Value of Economic and Racial Justice in Postsecondary Education,” 2021. Postsecondary Value Commission. <https://www.postsecondaryvalue.org/wp-content/uploads/2021/05/PVC-GUCEW-FINAL.pdf>
- 20 Georgetown University Center on Education and the Workforce analysis of data from the Integrated Postsecondary Education Data System (IPEDS), 2013–14 through 2017–18 (pooled data).
- 21 Carnevale et al., *Women Can’t Win*, 2018.
- 22 Levanon et al., “Occupational Feminization and Pay,” 2009.
- 23 Carnevale et al., *Women Can’t Win*, 2018.
- 24 Carnevale et al., *Women Can’t Win*, 2018.
- 25 Carnevale et al., *The Unequal Race for Good Jobs*, 2019.
- 26 For more on the impact of discrimination on earnings, see Carnevale et al., *The Unequal Race for Good Jobs*, 2019; and Carnevale et al., *Women Can’t Win*, 2018.
- 27 This estimate is based on the upper end of the range established by Kopczuk and Lupton, “To Leave or Not to Leave,” 2005.
- 28 Future research should consider the racial gaps in the share of wealth attributable to inheritance; for more about this recommendation, see Appendix A in Carnevale et al., “The Monetary Value of Economic and Racial Justice in Postsecondary Education,” 2021. Postsecondary Value Commission. <https://www.postsecondaryvalue.org/wp-content/uploads/2021/05/PVC-GUCEW-FINAL.pdf>
- 29 We assume that 45 percent of wealth among all groups is attributable to inheritance because our data set does not allow us to establish differences in inheritance among groups. As a result, these estimates may overstate the percentage of wealth attributable to inheritance among some groups and understate the percentage attributable to inheritance among others. For additional analysis related to this consideration, see Appendix A in Carnevale et al., “The Monetary Value of Economic and Racial Justice in Postsecondary Education,” 2021. Postsecondary Value Commission. <https://www.postsecondaryvalue.org/wp-content/uploads/2021/05/PVC-GUCEW-FINAL.pdf>

- 30 Georgetown University Center on Education and the Workforce analysis of data from US Census Bureau, American Community Survey (ACS), 2013–17; US Department of Education, National Postsecondary Student Aid Study (NPSAS), 2016; and US Census Bureau, Survey of Income and Program Participation (SIPP), 2014.
- 31 Sullivan et al., *The Racial Wealth Gap*, 2016.
- 32 Cutler and Lleras-Muney, “Education and Health,” 2006; Trostel, *It’s Not Just the Money*, 2015; Groot and Maassen van den Brink, “The Health Effects of Education,” 2007.
- 33 Trostel, *It’s Not Just the Money*, 2015. Throughout this literature review, “working-age” is defined as adults between the ages of 27 and 66.
- 34 Meara et al. indicate that racial gaps related to health are narrowing within as well as across different educational attainment groups. Meara et al., “The Gap Gets Bigger,” 2008.
- 35 Meara et al., “The Gap Gets Bigger,” 2008. Everett et al., “The Nonlinear Relationship between Education and Mortality,” 2013.
- 36 Vila, “The Non-Monetary Benefits of Education,” 2000; Lochner and Moretti, “The Effect of Education on Crime,” 2004; Trostel, *It’s Not Just the Money*, 2015.
- 37 Trostel, *It’s Not Just the Money*, 2015.
- 38 Lochner and Moretti, “The Effect of Education on Crime,” 2004.
- 39 For example, in their research on sentencing for white-collar crimes, Schanzenbach and Yaeger find that education is associated with reduced incarceration, and racial disparities exist in sentencing trends. Schanzenbach and Yaeger, “Prison Time, Fines, and Federal White-Collar Criminals,” 2006.
- 40 Oreopoulos and Salvanes, “Priceless,” 2011; Trostel, *It’s Not Just the Money*, 2015.
- 41 Stevenson and Wolfers, “Marriage and Divorce,” 2007; Aughinbaugh et al., “Marriage and Divorce,” 2013.
- 42 Jones and Tertilt, “An Economic History of Fertility in the U.S.,” 2006.
- 43 Trostel, *It’s Not Just the Money*, 2015.
- 44 Vila, “The Non-Monetary Benefits of Education,” 2000.
- 45 Milligan et al., “Does Education Improve Citizenship?,” 2004.
- 46 Green and Riddell, “Literacy and Earnings,” 2003.
- 47 Glaeser et al., “Do Institutions Cause Growth?,” 2004.
- 48 Lipset, “Some Social Requisites of Democracy,” 1959.
- 49 Verba et al., *Voice and Equality*, 1995.
- 50 Hanushek, “Publicly Provided Education,” 2002.
- 51 Lewis-Beck et al., *The American Voter Revisited*, 2008.
- 52 Milligan et al., “Does Education Improve Citizenship?,” 2004.
- 53 Trostel, *It’s Not Just the Money*, 2015; Ma et al., *Education Pays 2019*, 2019. In contrast, Dee does not find evidence of a significant relationship between educational attainment and the likelihood that one volunteers. Dee, “Are There Civic Returns to Education?,” 2004.
- 54 Carnevale et al, *The Role of Education in Taming Authoritarian Attitudes*, 2020.
- 55 Association of American Colleges and Universities, “The LEAP Challenge,” 2015.
- 56 Dražanová, *Education and Tolerance*, 2017.
- 57 For example, White Americans with higher educational attainment are not necessarily more likely to support affirmative action in hiring than those with lower levels of formal education. Wodtke, “The Impact of Education on Inter-Group Attitudes,” 2012.
- 58 Engberg and Hurtado, “Developing Pluralistic Skills and Dispositions in College,” 2011. Engberg and Hurtado measure pluralistic orientation according to “students’ self-ratings regarding their ability to see the world from someone else’s perspective, tolerance of others with different beliefs, openness to having one’s views challenged, ability to work cooperatively with diverse people, and ability to discuss and negotiate controversial issues.”
- 59 Dražanová, *Education and Tolerance*, 2017; Stenner, *The Authoritarian Dynamic*, 2005.
- 60 It is possible, for example, that groups reporting higher levels of happiness are not happier per se, but are simply more likely to say that they are happy due to socialization or other factors.
- 61 Blanchflower and Oswald, “Well-being Over Time in Britain and the USA,” 2004.
- 62 Oreopoulos and Salvanes, “Priceless,” 2011.

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