Higher Education Earnings Premium

Value, Variation, and Trends

Sandy Baum
February 2014

URBAN INSTITUTE

Jennifer Ma and Charles Kurose collaborated with the author on the College Board publication that provided the inspiration for this brief. Greg Acs, Jennifer Ma, and Kim Rueben provided helpful comments and others at the Urban Institute also made valuable contributions to this work.

Overall, people with a college education do better in the labor market than people with no education beyond high school. Higher levels of education correspond, on average, to higher levels of employment and higher wages. Yet, as college prices rise and as examples of graduates struggling to find remunerative employment despite their credentials become more visible, both potential students and the general public are questioning the value of a college education.

The data, however, remain clear: even at current prices, postsecondary education pays off for most people. Promising occupational and personal opportunities are disproportionately available to college graduates. It is increasingly difficult to maintain a middle class lifestyle without a postsecondary credential, and the economic, social, and civic benefits of a more educated population are well documented.

Outcomes do vary considerably, however, both among people with similar levels of education and across types of credentials. Growing income inequality does not just involve a growing gap between the earnings of the most educated and the least educated people; there is also increasing variation within educational categories.

Greater understanding of these patterns and of the changes over time in the earnings premium for different levels of education can add perspective to discussions of the importance of increased educational attainment for both individuals and society as a whole.

This brief highlights some of the complexities underlying discussions of the return to the investment in postsecondary education and describes some of the variation in outcomes that leads to the prevalent uncertainty about the value of the investment, clarifying that disappointing outcomes for some are not inconsistent with a high average payoff and significant benefits for most students.[1]

What Is College?

Many of the comparisons made here and elsewhere are between four-year college graduates and high school graduates. But "going to college" does not always mean going to a four-year institution or pursuing a bachelor's degree. For individuals on the fence about whether or not to pursue postsecondary education, a bachelor's degree is a relatively uncommon choice. Focusing on the degrees awarded by four-year colleges misses much of what postsecondary institutions offer today.

The majority of today's undergraduates will not earn four-year degrees. There were more certificates and associate degrees (2 million) than bachelor's degrees (1.7 million) awarded in 2010–11 (National Center for Education Statistics [NCES] 2012, tables 310 and 311). Further, 43 percent of undergraduate students are enrolled in two-year institutions or in non-degree-granting institutions—institutions that do not even grant bachelor's degrees (NCES 2012, tables 219 and 226).

It is common to hear the suggestion that many students should forgo college and instead seek vocational training. But most of that training takes place in community colleges or for-profit postsecondary institutions that are included in most metrics relating to college enrollment.[2] Agreeing on a broader definition of college would ease some of the confusion about encouraging more students to pursue postsecondary education and highlight the many options and pathways available.

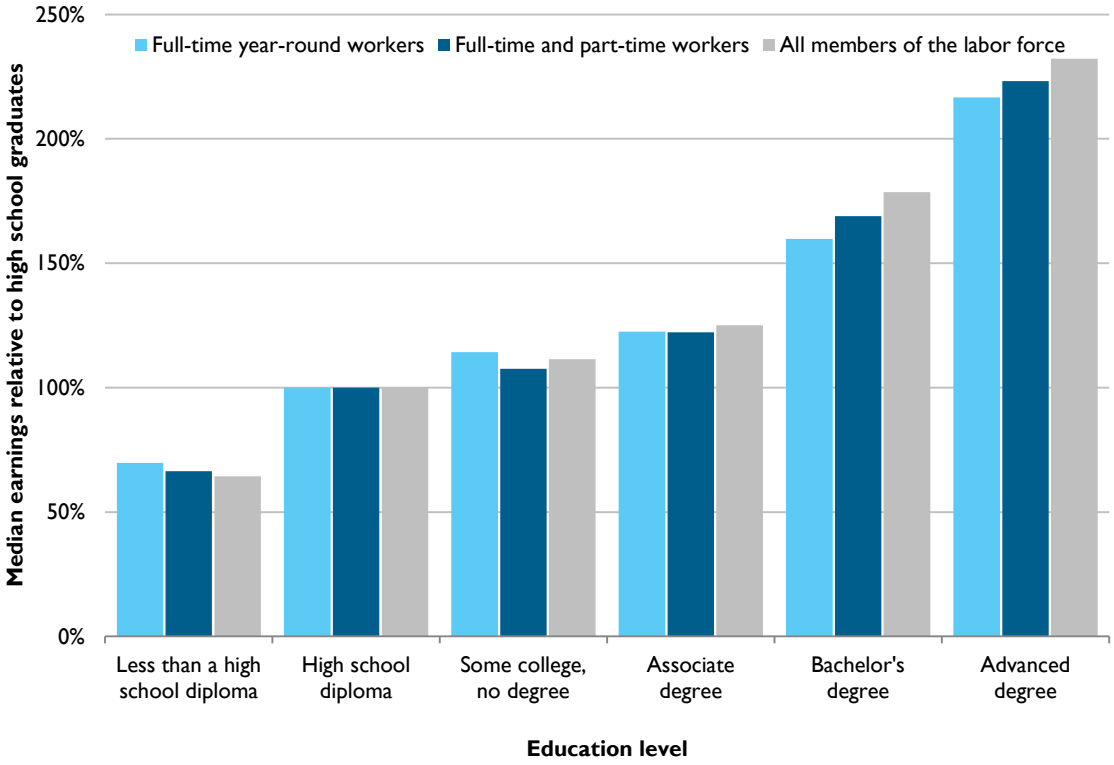
Earnings Premium for a Bachelor's Degree

Groups for Comparison

Statements about how the earnings of the average college graduate compare with the earnings of the average high school graduate are easy to find. Not surprisingly, to make their point about the value of a college degree simple and effective, most commentaries choose to report only one number. That number is usually the difference between median earnings of individuals with bachelor's degrees and those with only high school diplomas among those ages 25 and older, working full time, year-round—a gap of $21,300 (60 percent) in 2012 (US Census Bureau 2013d).

But that is not the only average we could examine. Citing an average earnings premium requires choosing among several possible groups of workers. Because employed four-year college graduates are more likely than high school graduates to be working full-time, including all adults over the age of 25 with earnings changes the gap from 60 percent to 69 percent (figure 1). Because high school graduates are more likely than college graduates to be unemployed, including all of those who are in the labor force (either employed or actively looking for work) yields a gap of 79 percent (figure 1).[3]

Figure 1. Median Earnings of Individuals Ages 25 and Older Relative to High School Graduates, by Work Experience and Level of Educational Attainment, 2012



Employed (%)	88	91	93	95	96	97
Employed full time (%)	64	73	72	74	79	78

Sources: US Census Bureau (2013b and d); calculations by the author.
Note: The percent of those employed full time is a subset of the percent of those employed.

The earnings premium also differs across demographic groups. While in 2012, median earnings for full-time workers ages 25 and older with bachelor's degrees were 64 and 65 percent higher than for high school graduates for men and women, respectively, because men's earnings are higher than women's for both groups, the $25,800 difference for men compares with a $19,800 difference for women. For Asian four-year college graduates working full-time, median earnings were almost double those for high school graduates. For blacks, the gap was 64 percent (US Census Bureau 2013d).

All of the comparisons above are between adults whose highest degree is a bachelor's degree and those whose highest degree is a high school diploma. They exclude those who continued on to earn master's, doctoral, or professional degrees. Including those groups would overstate the payoff to a bachelor's degree since advanced degrees have a large positive impact on earnings. Excluding them, however, understates the payoff to a bachelor's degree, leaving out many

successful students with ambitious career goals and the value of a bachelor's degree in opening up the possibility of graduate study.

In the first decade of the 21st century, the earnings premium for advanced degrees rose more rapidly than that for bachelor's degrees. For example, in 2002, average earnings for full-time workers ages 35 to 44 with master's degrees were 8 percent higher than those for similar workers whose highest degree was a bachelor's degree. By 2012, that difference was 21 percent (US Census Bureau 2013d, table P-32; calculations by the author).

Variation by State and Occupation

Though sometimes it makes sense to compare averages, calling attention to the wide variation in the earnings of people with similar levels of education is also important. In 2012, median earnings for 35- to 44-year-olds working full time, whose highest degree was a bachelor's degree, were $61,255, compared with $35,703 for high school graduates (US Census Bureau 2013d). But about one in six four-year college graduates earned less than $35,703. These outliers among their cohort may not perceive a high financial payoff to *their* college degrees.

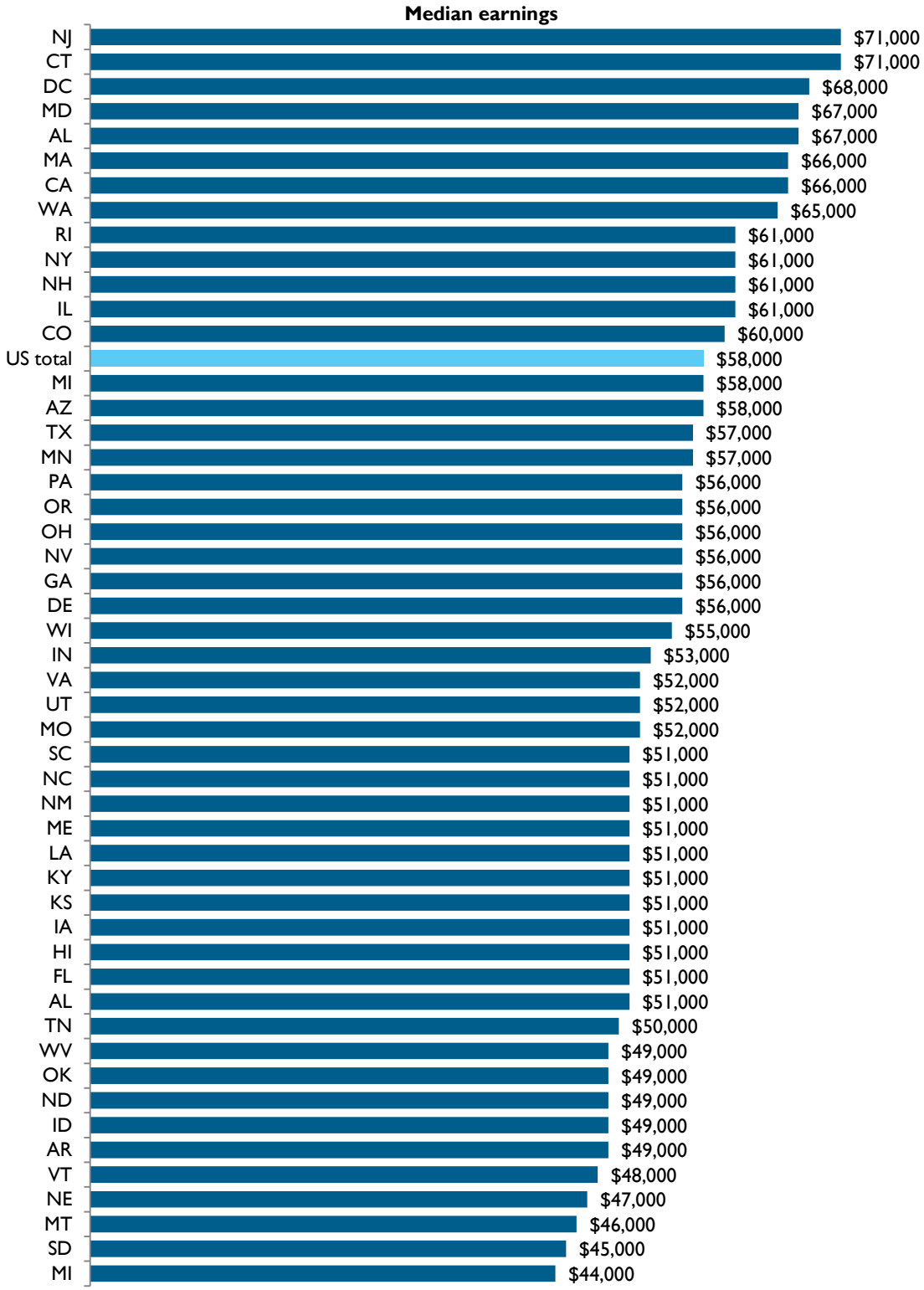
A number of factors explain this variation, some of which, such as geographic location, can help to predict outcomes for individuals. For example, median earnings for bachelor's degree recipients ages 25 and older working full time in 2011 were about $58,000 for the nation as a whole; but in individual states the median ranged from $44,000 in Mississippi and less than $50,000 in nine other states, to $71,000 in Connecticut and New Jersey and more than $65,000 in four other states and the District of Columbia (figure 2). Because the cost of living also differs considerably from state to state, these differences are not always easy to interpret.

High earnings for four-year college graduates do not always lead to high earnings premiums relative to high school graduates. In four of the five states with the highest median earnings for those with bachelor's degrees, the earnings differential between high school graduates and four-year college graduates was *less* than the national average in 2011, because high school graduates also have relatively high earnings in these states (US Census Bureau 2011a; calculations by the author).

In addition to geographic differences, there are significant differences in both earnings levels and earnings premiums across occupations. These differences do not necessarily correspond to differences in fields of study, since students with particular majors enter a wide range of occupations, and workers in most occupations come from a variety of educational backgrounds.

About 18 percent of full-time workers whose highest degree is a bachelor's degree are in four large occupations. These include elementary and middle school teachers—an occupation where those with the minimum educational requirement of a bachelor's degree had median earnings of about $44,200 in 2011—and miscellaneous managers, whose median earnings were $82,100, in addition to registered nurses, and accountants and auditors (Baum, Kurose, and Ma 2013, table 8.2).[4]

Figure 2. Median Earnings of Bachelor's Degree Recipients Ages 25 and Older Working Full-Time Full-Year by Location, 2011



Source: US Census Bureau (2011a); calculations by the author.
Note: The individuals in this chart are those whose highest degree is a bachelor's degree.

Focus on Recent College Graduates

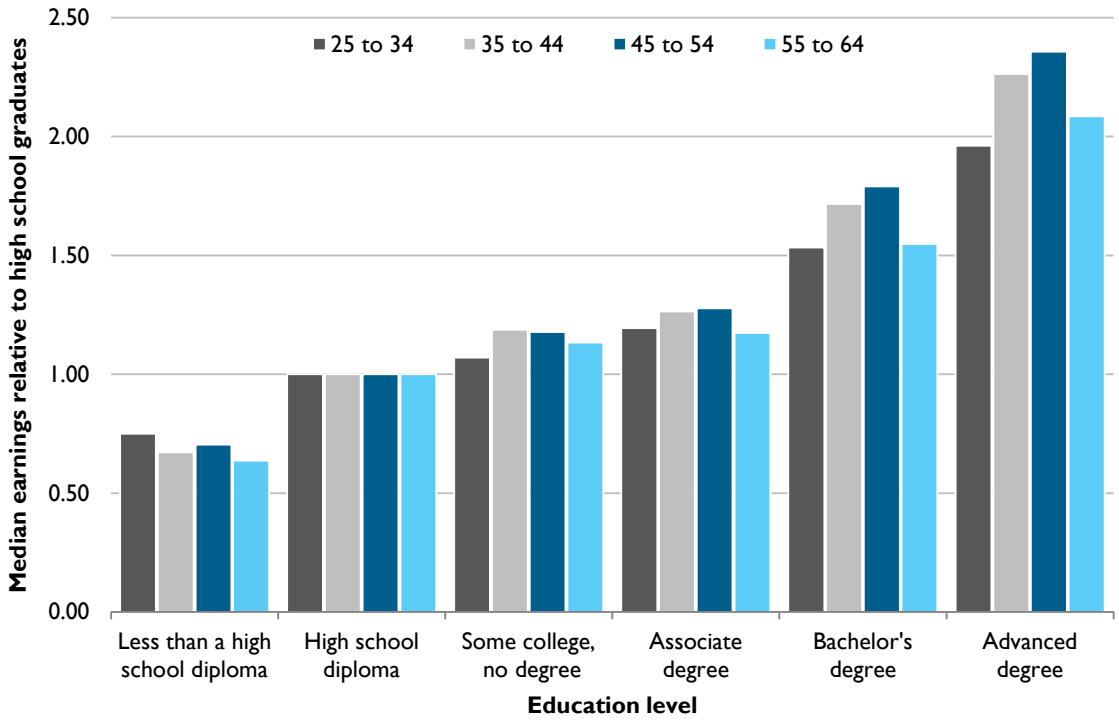
Much of the current skepticism about the financial payoff of higher education emerges from recent media focus on young college graduates struggling to enter a weak labor market. Articles of this sort tend to proliferate during recessions, but they highlight situations that are likely to be temporary, rather than providing insight into the long-term payoff of the investment in higher education (Abel, Deitz, and Su 2014).[5]

The 5.5 percent 2012 unemployment rate for 23- to 26-year-old bachelor's degree recipients—the group that includes many of the recent college graduates for whom there is so much concern—compares with a 14.6 percent unemployment rate for high school graduates in the same age range, 9.9 percent for those with some college but no degree, and 8.5 percent for associate degree recipients (Baum, Kurose, and Ma 2013, table 6.1). But it leaves enough new labor market entrants without jobs to generate disturbing newspaper headlines.

Young college graduates have higher unemployment rates than college graduates who have been in the labor market for a longer time, and for young workers employed full-time, the college earnings premium is smaller than it is for older workers (figure 3). In 2012, median earnings for full-time workers between the ages of 25 and 34 with bachelor's degrees were 53 percent higher than earnings for similar workers with only a high school diploma. The gap grew to 72 percent for 35-to 44-year-olds and to 79 percent for 45- to 54-year-olds (US Census Bureau 2013d).

A four-year college degree is not a guarantee of immediate and well-paid employment. Especially for students graduating into weak labor markets, it frequently takes time to find the path that will make it clear that going to college was worth it. But focusing on these difficulties obscures the reality that the struggles are usually greatest for young people who have no postsecondary education.

Figure 3. Median Earnings of Full-Time Year-Round Workers Ages 25 to 64 Relative to High School Graduates, 2012



Sources: US Census Bureau (2013d); calculations by the author.

Earnings Premium Over Time

Skeptics of the value of a college education often argue erroneously that the payoff is declining. Comparisons over time involve all of the complexities cited above, plus questions about the appropriate time periods to examine and about how to interpret year-to-year changes.

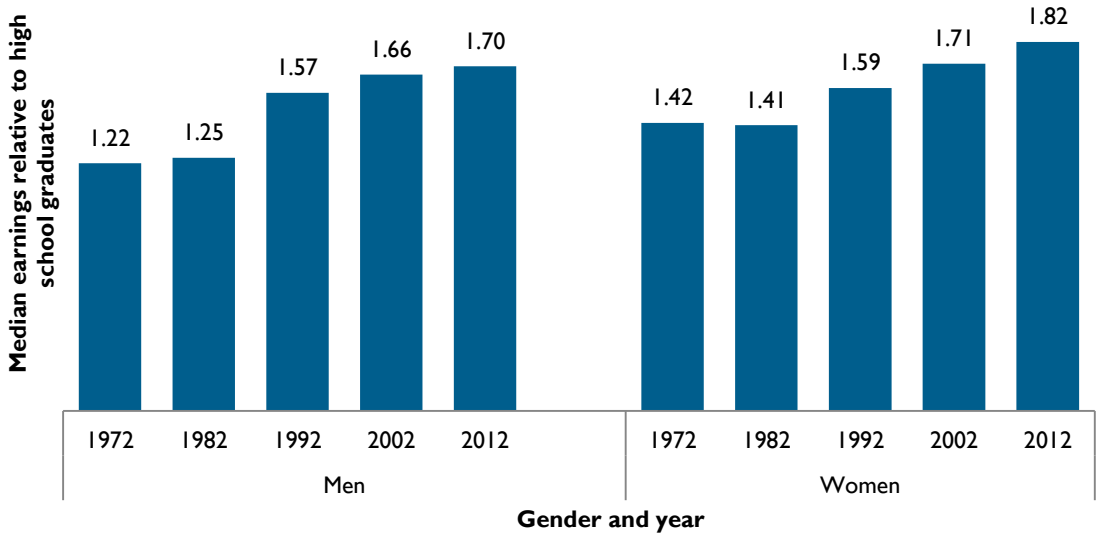
As figure 4 illustrates, median 2012 earnings of men and women ages 25 to 34 with a bachelor's degree or higher working full time were, respectively, 70 and 82 percent higher than median earnings of their high school graduate counterparts. Twenty years earlier, the earnings differentials were just under 60 percent for both genders.

The growth in the earnings premium between 1992 and 2012 occurred while the percentage of adults in this age range with no education beyond high school fell from 57 percent to 43 percent, and the percentage of those with at least a bachelor's degree increased from 21 percent to 31 percent (US Census Bureau 2013a). All else equal, the increase in the supply of college graduates relative to high school graduates should have caused the gap between college and high school earnings to narrow. Its increase indicates that that increasing demand for college-educated workers outstripped the increase in their supply (Goldin and Katz 2008).

Focusing on the most recent decade sheds light on how people can tell different stories with the same data because, as Figure 5 indicates, the earnings premium has been fluctuating. Among men, the gap increased from 66 percent in 2002 to 70 percent in 2012, but the smallest gap was 61 percent in 2010 and the largest was 74 percent in 2008. Among women, the gap increased from 71 percent in 2002 to a high of 82 percent in 2012, but the smallest gap was 67 percent in 2004.

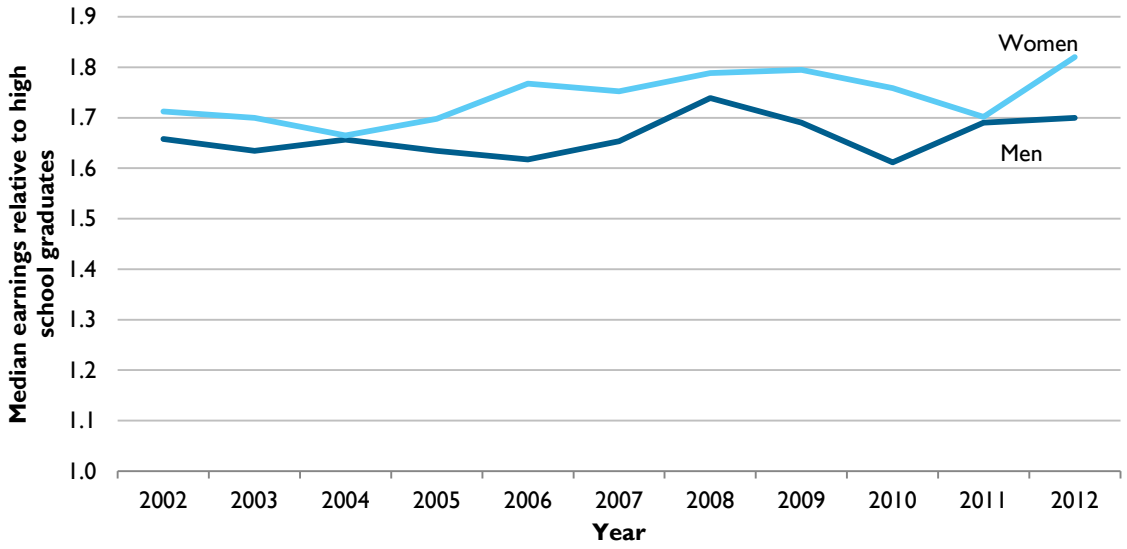
The data on earnings differentials over time are complicated. Choosing a different start date can make the story look different. The earnings premium has risen more for all men and all women than for those working full time. Despite these complicating factors, the data are consistent in showing that the earnings benefits of college graduates are secure.

Figure 4. Median Earnings of Full-Time Year-Round Workers Ages 25–34 with at Least a Bachelor's Degree Relative to High School Graduates, 1972–2012, Selected Years



Sources: NCES 2004, table 14-1; US Census Bureau (1995–2010, 2011b–2012, and 2013d); calculations by the author.

Figure 5. Median Earnings of Full-Time Year-Round Workers Ages 25–34 with at Least a Bachelor's Degree Relative to High School Graduates, 2002–2012



Sources: US Census Bureau (2003–2010, 2011b–2012, and 2013d); calculations by the author.

Some College, Certificates, and Associate Degrees

For those with bachelor's degrees or higher—and particularly for those with advanced degrees—the earnings premium has increased markedly over time. But the trend is less clear for those with associate degrees and the premium for those with some college but no degree is not increasing. Nonetheless, there are measurable differences in average earnings between high school graduates and those with any level of postsecondary education, including those who have not earned credentials.

As with bachelor's degree recipients, the earnings premium for associate degree holders tends to grow with age. Median earnings for full-time workers between the ages of 25 and 34 with associate degrees were 19 percent higher than median earnings of high school graduates in 2012. This earnings gap rose to 26 percent for 35- to 44-year-olds, and 28 percent for 45- to 54-year-olds, but was only 17 percent for 55- to 64-year-olds (US Census Bureau 2013d; calculations by the author).

One of the realities that leads some to question the wisdom of increasing college participation is the frequency with which those who enroll leave without completing a degree or certificate. Among students who first enrolled in college in fall 2007 and who always attended full-time, 78 percent had completed a degree or certificate six years later. But when part-time students and those with mixed enrollment patterns are included, only 56 percent completed credentials in this time period (Shapiro et al. 2013, Appendix C, table 7).[6] Among the 84 percent of 2002 high school sophomores who had enrolled in postsecondary education, 62 percent had completed a postsecondary certificate, an associate degree, or a bachelor's degree by 2012 (Lauff and Ingels 2014, table 1).

It is not simple to incorporate the probability of a student leaving without a credential into estimates of the expected return facing a prospective student. Students' academic preparation, personal characteristics, circumstances, and the institutions and programs in which they are planning to enroll are all relevant. Both the costs and the benefits depend on how long the student stays in school. Even those who complete a year or more of study without earning a credential are likely to see an earnings benefit, but one much smaller than if they achieved their original goals. In 2012, the gap between median earnings of full-time working adults between the ages of 25 and 34 with some college but no degree and high school graduates was $2,180 (7 percent) and for

those ages 35 to 44 it was $6,690 (19 percent) (US Census Bureau 2013d; calculations by the author).

Predicting the Future

Understanding the payoff of various types of college degrees for current workers with different characteristics and in different circumstances is difficult—predicting how the credentials earned by today's students will pay off is even more challenging. We cannot accurately predict the future demands of the labor market and how the experiences of adults of different ages and with different levels and types of education will reflect those demands.

One example of the problem of projecting earnings comes in assertions about the amount by which the lifetime earnings of bachelor's degree recipients exceed those of high school graduates. The commonly cited figure of $1 million emerges from Census Bureau estimates, which sum the current average earnings of workers at each age from 25 to 64 to estimate lifetime earnings (Julian and Kominski 2011). These calculations do not include any discounting of future earnings to account for the fact that dollars earned in the future are worth less than those earned today. Discounting future returns cuts the estimate almost in half.

A more fundamental question is whether the earnings of today's 55-year-old high school and college graduates provide a good preview of how much today's 35 year-olds will be earning in 20 years. These projections are best taken as approximations of the ways in which changing employment options will affect future earnings.

The problems plaguing estimates of the future demand for college graduates are central to debates about the importance of expanding postsecondary education in the United States. There is disagreement about whether there is a shortage of college-educated workers or a shortage of jobs, particularly those that require college-level skills.

A frequently cited estimate suggests that, unless we change course, by 2018 the number of jobs in the US economy that require workers with at least an associate degree will exceed the supply of qualified workers by about three million (Carnevale, Smith, and Strohl 2010). Others predict that the rising demand for highly-skilled workers will be met—at least in the near term—by increasing supply (Neumark, Johnson, and Mejia 2013).

There is no consensus on whether jobs should be categorized as "college level" because they employ a large number of college graduates or whether they should be assessed for required skills, regardless of who is employed. The first approach essentially defines away the idea of people being underemployed. If everyone had a college degree, would all jobs require a college degree? On the other hand, the nature of many occupations changes over time and a college degree may become more important. For example, auto mechanics need much more knowledge of computers and electronics today than they did a generation ago. Executive assistants used to spend much of their time taking dictation and typing. Now they have more complex organizational and communications responsibilities. In many jobs people with more skills and initiative may make greater contributions than others.

The Bureau of Labor Statistics (BLS) assigns an educational requirement to each occupation. But many occupations employ people with a wide range of educational backgrounds. For example, in 2009, about half of all insurance underwriters had four-year college degrees, over 30 percent had some college or an associate degree, and 19 percent had no college experience (Baum, Kurose, and Ma 2013, table 9.1).

Wage differentials within occupations with a mix of employees provide some evidence about the role of college degrees in different types of jobs. Logically, employers would not pay higher wages to more educated workers if they were not more productive. In the occupations employing people with a wide variety of credentials, no matter the education level required, median earnings are higher for bachelor's degree recipients than for high school graduates (Baum, Kurose, and Ma. 2013, table 8.4). Harrington and Sum (2010) found that associate degree holders with jobs categorized as requiring this degree earned 60 percent more than high school graduates in the same occupation. Those employed in jobs with lower educational requirements enjoyed just a 10

percent earnings premium. Parallel figures for bachelor's degree recipients were 88 percent and 15 percent, respectively. While there is almost always an earnings premium for higher levels of education, to reap the full benefit, college graduates must have jobs that are in a meaningful sense, part of the college labor market.

Both predictions of a failing economy resulting from a lack of educated workers and predictions of millions of educated workers seeing their talents wasted should be greeted with skepticism. The evidence demonstrates that most people do better in the labor market if they have higher levels of education. Employers seek and pay a premium for workers with postsecondary credentials and that premium has grown considerably over time.

Conclusion

Higher levels of educational attainment are associated with higher earnings for a variety of reasons. Whether workers have some college but no degree (but possibly a certificate), an associate degree, a bachelor's degree, or an advanced degree, they are likely to earn more than they would without postsecondary education. They are more likely to be employed and if they are employed, more likely to be working full time.

Earnings differentials have grown most in recent years for those with advanced degrees. But even for those with some college but no degree, median earnings for full-time workers are measurably higher than median earnings for high school graduates. Even after accounting for paying higher taxes (and for paying for college), postsecondary education pays off for most people. Yet there is considerable variation in outcomes and not every college graduate earns more than every high school graduate.

One question is whether the additional students who might not have enrolled in college in the past but do so today can expect payoffs as high as those experienced by those for whom enrolling is the obvious choice. A fundamental question here is why students do not enroll. If all potential students have meaningful available options and are making choices based on their aspirations and on good information about their own opportunities, those who do not enroll may be those who would benefit least from obtaining a bachelor's degree.[7] On the other hand, if students face large financial barriers, if they come from environments that do not create the expectation that they will go to college or provide support for that choice, or if they are unable to navigate the complex processes required, it is likely that students are forgoing significant benefits (Brand and Xie 2010).

Investments in education after high school are not guarantees. Some people never reach their goals. Some of the variation in the earnings of people who have degrees can be explained by student characteristics including academic preparation, gender, race or ethnicity, and age. The institutions or programs in which students enroll, geography, and occupation also make a difference. Some of the variation depends on personal choices, on chance, or on unpredictable circumstances.

This variation in outcomes means that it is always possible to find people for whom going to college does not pay off, or at least not as well as they had hoped it would. But this variation does not diminish the benefits most students experience as a result of their college education.

While this brief has focused on labor market returns, many of the rewards of postsecondary education are nonmonetary. College graduates are healthier, are more engaged citizens, and have more opportunities than adults with no postsecondary education.[8] Making earnings the dominant criterion for guiding students would deplete our supply of elementary and secondary schoolteachers. It would also lead many students into fields where they would be unlikely to succeed or find satisfaction.

There is not one simple answer to the question of the value of a college education—even if we focus only on the monetary value. Different definitions and different measures lead to different results. Acknowledging that not all postsecondary paths are productive for all students (and that some are productive for very few) helps put the stories of unfortunate but atypical students into perspective. College pays off well for most people. And the payoff for those on the fence—the

marginal students who might be induced to enroll by policy changes including the availability of better information and more generous funding—is likely to be high.

Notes

1. More detail about the concepts discussed here and extensive related data can be found in *How College Shapes Lives: Understanding the Issues*, (Baum, Kurose, and Ma 2013).

2. Jacques Steinberg, in a 2010 *New York Times* article, states "A small but influential group of economists and educators argue that it is time to develop credible alternatives for some high school graduates that would steer them away from college and toward intensive, short-term vocational and career training." Steinberg, Jacques, "Is College for Everyone?" *New York Times*, May 25, 2010, http://thechoice.blogs.nytimes.com/2010/05/15/is-college-for-everyone/. Charles Murray argues that "Almost all young people need some training after high school, but pursuing a bachelor's is a clumsy, ineffectual way to get the training they need." Mary Beth Marklein, "Do Too Many People Go to College? This Author Says Yes," *USA Today*, August 8, 2008, http://usatoday30.usatoday.com/news/education/2008-08-20-murray-questions_N.htm. See also, Murray, Charles, "For Most People, College Is a Waste of Time," *Wall Street Journal*, August 13, 2008, http://online.wsj.com/news/articles/SB121858688764535107

3. While the percentage difference between median earnings of high school graduates and four-year college graduates increases when the population is broadened to include part-time workers, the dollar gap decreases, as the median earnings are lower for the larger group at all levels of educational attainment.

4. Just over half of all K-12 teachers have advanced degrees. Median earnings for these teachers are about 28 percent higher than the median for those whose highest degree is a bachelor's degree (US Census Bureau, *PUMS*, 2012, http://www.census.gov/acs/www/data_documentation/public_use_microdata_sample/).

5. Abel, Deitz, and Su provide an in-depth comparison of outcomes of recent college graduates to both young people without college degrees and older college graduates.

6. The percentage of first-time full-time students at four-year institutions who completed a bachelor's degree within six years was 58 percent for the 1996 starting cohort, 60 percent for the 2000, 2002, and 2003 cohorts, and 61 percent for the 2004 cohort. The percentage of first-time full-time degree or certificate-seeking students at two-year colleges completing a credential within 150 percent of the normal time ranged from 28 percent to 31 percent for all cohorts from 2000 through 2008 cohort (NCES 2012, tables 376 and 377).

7. See Carneiro, Heckman, and Vytlacil (2011) for the rational choice argument.

8. See Baum, Ma, and Payea (2013) for a detailed review of the benefit of higher education for individuals and for society.

References

Abel, Jaison, Richard Deitz, and Yaqin Su. 2014. "Are Recent College Graduates Finding Good Jobs?" *Current Issues in Economics and Finance*, 20 (1), New York, NY: Federal Reserve Bank of New York. http://www.newyorkfed.org/research/current_issues/ci20-1.pdf.

Baum, Sandy, Charles Kurose, and Jennifer Ma. 2013. *How College Shapes Lives: Understanding the Issues*. Trends in Higher Education. New York, NY: College Board. http://trends.collegeboard.org/sites/default/files/education-pays-2013-how-college-shapes-lives-report.pdf.

Baum, Sandy, Jennifer Ma, and Kathleen Payea. 2013. *Education Pays 2013: The Benefits of Higher Education for Individuals and Society*. Trends in Higher Education. New York, NY: College Board. http://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report.pdf.

Brand, Jenny, and Yu Xie. 2010. "Who Benefits Most From College? Evidence for Negative Selection in Heterogeneous Economic Returns to Higher Education." *American Sociological Review*, 75 (2): 273–302.

Carneiro, Pedro, James J. Heckman, and Edward J. Vytlacil. 2011. "Estimating Marginal Returns to Education." *America Economic Review*, 101 (6): 2754–81.

Carnevale, Anthony, Nicole Smith, and Jeff Strohl. 2010. *Help Wanted: Projections of Jobs and Education Requirements Through 2018*.Washington, DC: Georgetown University Center on Education and the Workforce. http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/HelpWanted.ExecutiveSummary.pdf.

Goldin, Claudia, and Lawrence Katz. 2008. *The Race between Education and Technology*. Cambridge, MA: Belknap Press.

Harrington, Paul and Sum, Andrew. 2010. "College Labor Shortages in 2018?" *The New England Journal of Higher Education*.

Julian, Tiffany, and Robert Kominski. 2011. "Education and Synthetic Work-Life Earnings Estimates." American Community Survey Reports. Washington, DC: US Census Bureau. http://www.census.gov/prod/2011pubs/acs-14.pdf.

Lauff, Erich, and Steven J. Ingels. 2014. *Educational Longitudinal Study of 2002 (ELS:2002): A First Look at 2002 High School Sophomores 10 Years Later*. Washington, DC: NCES, US Department of Education. http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2014363.

National Center for Education Statistics (NCES). 2004. *The Condition of Education 2004*. Washington, DC: US Department of Education. http://nces.ed.gov/pubs2004/2004077.pdf.

NCES. 2012. Digest of Education Statistics. Washington, DC: US Department of Education. http://nces.ed.gov/programs/digest/2012menu_tables.asp.

Neumark, David, Hans Johnson, and Marisol Cuellar Mejia. 2013. "Future Skills Shortages in the U.S. Economy?" *Economics of Education Review*, 32 (1): 151–167.

Shapiro, Doug, Afet Dundar, Mary Ziskin, Xin Yuan, and Autumn Harrell. 2013. *Completing College: A National View of Student Attainment Rates—Fall 2007 Cohort*. Washington, DC: National Student Clearinghouse Research Center. http://nscresearchcenter.org/signaturereport6/.

US Census Bureau. 1995. Income and Poverty Statistics: 1994, Table PINC-06. http://www.census.gov/hhes/www/cpstables/macro/031995/perinc/toc.htm.

US Census Bureau. 1996. Money Income in the United States: 1995, Table PINC-06. http://www.census.gov/hhes/www/cpstables/macro/031996/perinc/toc.htm.

US Census Bureau. 1997. Money Income in the United States: 1996, Table PINC-06. http://www.census.gov/hhes/www/cpstables/macro/031997/perinc/toc.htm.

US Census Bureau. 1998. Money Income in the United States: 1997, Table PINC-06. http://www.census.gov/hhes/www/cpstables/macro/031998/perinc/toc.htm.

US Census Bureau. 1999. Money Income in the United States: 1998, Table PINC-06. http://www.census.gov/hhes/www/cpstables/macro/031999/perinc/toc.htm.

US Census Bureau. 2000. Money Income in the United States: 1999, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032000/perinc/toc.htm.

US Census Bureau. 2001. Money Income in the United States: 2000, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032001/perinc/toc.htm.

US Census Bureau. 2002. Money Income in the United States: 2001, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032002/perinc/toc.htm.

US Census Bureau. 2003. Money Income in the United States: 2002, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032003/perinc/toc.htm.

US Census Bureau. 2004. Money Income in the United States: 2003, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032004/perinc/toc.htm.

US Census Bureau. 2005. Income, Poverty and Health Insurance in the United States: 2004, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032005/perinc/toc.htm.

US Census Bureau. 2006. Income, Poverty and Health Insurance in the United States: 2005, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032006/perinc/toc.htm.

US Census Bureau. 2007. Income, Poverty and Health Insurance in the United States: 2006, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032007/perinc/toc.htm.

US Census Bureau. 2008. Income, Poverty and Health Insurance in the United States: 2007, Table PINC-03. http://www.census.gov/hhes/www/cpstables/macro/032008/perinc/toc.htm.

US Census Bureau. 2009. Income, Poverty and Health Insurance in the United States: 2008, Table PINC-03. http://www.census.gov/hhes/www/cpstables/032009/perinc/toc.htm.

US Census Bureau. 2010. Income, Poverty and Health Insurance in the United States: 2009, Table PINC-03. http://www.census.gov/hhes/www/cpstables/032010/perinc/toc.htm.

US Census Bureau. 2011a. 2011 American Community Survey (ACS) 1-Year Public Use Microdata Sample (PUMS). http://www.census.gov/acs/www/data_documentation/public_use_microdata_sample/.

US Census Bureau. 2011b. Income, Poverty and Health Insurance in the United States: 2010, Table PINC-03. http://www.census.gov/hhes/www/cpstables/032011/perinc/toc.htm.

US Census Bureau. 2012. Income, Poverty and Health Insurance in the United States: 2011, Table PINC-03. http://www.census.gov/hhes/www/cpstables/032012/perinc/toc.htm.

US Census Bureau. 2013a. Consumer Population Survey Historical Time Series Tables, table A-1. http://www.census.gov/hhes/socdemo/education/data/cps/historical.

US Census Bureau. 2013b. Current Population Survey, Annual Social and Economic Supplement. http://dataferrett.census.gov.

US Census Bureau. 2013c. Historical Income Tables: People, Table P-32. http://www.census.gov/hhes/www/income/data/historical/people/.

US Census Bureau, 2013d. Income, Poverty and Health Insurance in the United States: 2012, table PINC-03. http://www.census.gov/hhes/ www/income/data/index.html.