



TO SEE
THE FULL LIST
OF OVER
1,400 COLLEGES, VISIT
[cew.georgetown.edu/
collegerankings](http://cew.georgetown.edu/collegerankings)

RANKING YOUR COLLEGE

Anthony P. Carnevale, Ban Cheah
and Martin Van Der Werf

WHERE YOU GO AND WHAT YOU MAKE

December 2015

GEORGETOWN UNIVERSITY



Center
on Education
and the Workforce

McCourt School of Public Policy



AN ANALYSIS OF THE COLLEGE SCORECARD

In September 2015, the U.S. Department of Education released its redesigned College Scorecard, a web tool that allows users to access a vast array of information about the quality of colleges and universities throughout the country. For the first time, users can easily find how much students who have taken courses in thousands of colleges across the United States earn 10 years after enrolling, which is essential information for students deciding where to go to college and how much debt to take on.¹ The Department of Education designed the College Scorecard to be used by prospective students evaluating their college options.

The following tables use the College Scorecard data to rank colleges and universities strictly on earnings, but then test how sensitive the ranking of a university is when adjustments are made to earnings.² The analysis attempts to help answer several questions: How important is student preparation? How much are average earnings skewed by choice of majors and by the selection of majors available at a particular university? If a university, such as Stevens Institute of Technology, ranks high strictly in earnings but much lower after adjusting for composition of majors, it would indicate that the distribution of majors at the university is of primary importance. If another university, such as Harvard, retains its ranking even after adjusting for expected earnings based on its share of majors, it might indicate that the quality of the university matters as much as the majors it offers.

The academic preparation of the students is another important factor. If a university, such as the University of Colorado-Denver, rose in the rankings based on this factor, it is a clear indication that the university was able to produce a higher quality of students than would have been expected based on the students' academic preparation. In other words, a university helped students to become better and earn more money in their future.

¹ The data is limited to students who file for federal financial aid and includes both graduates and non-graduates. Earnings data were derived from tax returns.

² We exclude special focus institutions and tribal colleges and only include predominantly Bachelor's degree-granting institutions. The College Scorecard sometimes pools the median earnings of colleges with multiple locations into one aggregate median earnings figures. For instance, students at the University of Phoenix all earn \$53,400 regardless of whether they are on the Hawaii Campus or in southern Arizona. This is also true for Pennsylvania State University. However, median earnings for Indiana University and the University of Wisconsin are different for students at different campuses.

EARNINGS

Table 1 shows the 20 four-year colleges whose students go on to earn the highest salaries in the labor market 10 years after beginning their studies. Students at the Massachusetts Institute of Technology (MIT) earn \$91,600 per year, the highest among four-year colleges and universities, followed by the United States Merchant Marine Academy and Harvard University.

The list of the top 20 institutions with the highest earnings consists of two types of institutions:

1) elite private universities and liberal arts colleges, such as Harvard University and Washington and Lee University, and 2) institutions that primarily focus on technology and engineering, such as MIT and Harvey Mudd College, business, such as Bentley University, or training students for jobs in specific industries, such as the four maritime academies and the Colorado School of Mines.

Table 1. Students who attend the Massachusetts Institute of Technology (MIT) earn \$91,600 annually 10 years after initially enrolling, the highest among four-year colleges.

RANK	STATE	INSTITUTION	ANNUAL EARNINGS	GRADUATION RATE
1	MA	Massachusetts Institute of Technology	\$91,600	93%
2	NY	United States Merchant Marine Academy	\$89,000	75%
3	MA	Harvard University	\$87,200	97%
4	DC	Georgetown University	\$83,300	93%
5	NJ	Stevens Institute of Technology	\$82,800	78%
6	NY	Rensselaer Polytechnic Institute	\$81,700	85%
7	CA	California Maritime Academy	\$81,100	58%
8	CA	Stanford University	\$80,900	95%
9	MA	Massachusetts Maritime Academy	\$79,500	64%
10	CA	Harvey Mudd College	\$78,600	90%
11	PA	University of Pennsylvania	\$78,200	96%
12	MA	Worcester Polytechnic Institute	\$77,600	82%
13	VA	Washington and Lee University	\$77,600	90%
14	NY	SUNY Maritime College	\$77,300	48%
15	PA	Lehigh University	\$76,800	87%
16	NC	Duke University	\$76,700	94%
17	NJ	Princeton University	\$75,100	96%
18	MA	Bentley University	\$74,900	86%
19	MI	Kettering University	\$74,900	59%
20	CO	Colorado School of Mines	\$74,700	68%

Source: Georgetown University Center on Education and the Workforce analysis of data from the U.S. Department of Education's College Scorecard, 2015.

EARNINGS AND MAJOR/PROGRAM DIFFERENCES

One of the chief reasons that some college graduates earn more than others is their major or program of study. For example, petroleum engineering majors earn \$136,000 annually at mid-career, while early childhood education majors earn \$36,000. Colleges differ substantially in terms of the majors they offer to their students. Some colleges have high concentrations of high-earning majors like engineering and business, while others have high concentrations of low-earning majors like education and social work.

For example, based on the unadjusted earnings data, Lehigh University ranks 15th. Its students earn \$77,000 annually, 10 years after starting their studies. Lehigh also has a large share of engineering and business majors: 30 percent of Lehigh undergrads study engineering and 27 percent study business.³ Are Lehigh's high earnings figures driven by the overall quality of the education Lehigh provides or the large share of students enrolled in majors that tend to lead to high earnings in the labor market?

In an effort to isolate the effects of the quality of the colleges, as opposed to differences in majors, we adjust for differences in the composition of majors within each institutions' undergraduate student population.⁴ Attending Harvard University, Georgetown University, and the University of Colorado-Denver leads to the highest earnings relative to what we would expect based on their composition of majors (Table 2). Notably, relative to the unadjusted rankings, MIT moves from first to fourth in these rankings and many of the maritime colleges drop out of the top 20. The University of Colorado-Denver and the University of the Pacific move into the top 20, while the California Maritime Academy falls from seventh to 20th.⁵

Table 2. Former Harvard University students earn \$29,200 more than would be expected based on their choice of majors.

RANK	STATE	INSTITUTION	EXPECTED EARNINGS*	MEDIAN EARNINGS	DIFFERENCE IN EXPECTED AND MEDIAN EARNINGS	GRADUATION RATE
1	MA	Harvard University	\$58,000	\$87,200	\$29,200	97%
2	DC	Georgetown University	\$54,400	\$83,300	\$28,900	93%
3	CO	University of Colorado-Denver	\$47,200	\$73,800	\$26,600	43%
4	MA	Massachusetts Institute of Technology	\$65,800	\$91,600	\$25,800	93%
5	CA	Stanford University	\$55,400	\$80,900	\$25,500	95%
6	MA	Bentley University	\$49,900	\$74,900	\$25,000	86%
7	PA	University of Pennsylvania	\$53,600	\$78,200	\$24,600	96%
8	NC	Duke University	\$52,400	\$76,700	\$24,300	94%
9	VA	Washington and Lee University	\$54,600	\$77,600	\$23,000	90%
10	CA	University of the Pacific	\$45,700	\$66,400	\$20,700	57%
11	NY	Molloy College	\$37,300	\$57,500	\$20,200	64%
12	PA	Villanova University	\$53,900	\$73,700	\$19,800	89%
13	NY	Cornell University	\$51,200	\$70,900	\$19,700	93%
14	MA	Boston College	\$48,200	\$67,000	\$18,800	92%
15	CT	Fairfield University	\$50,500	\$69,000	\$18,500	81%
16	MN	Martin Luther College	\$22,400	\$40,400	\$18,000	75%
17	PA	Carnegie Mellon University	\$54,300	\$72,000	\$17,700	87%
18	NY	Saint Joseph's College-New York	\$34,400	\$51,800	\$17,400	70%
19	RI	Providence College	\$43,100	\$59,600	\$16,500	86%
20	CA	California Maritime Academy	\$64,900	\$81,100	\$16,200	58%

Source: Georgetown University Center on Education and the Workforce analysis of data from the U.S. Department of Education's College Scorecard, 2015.

*Based on the composition of undergraduates' majors at the institution.

³ Business is the most common undergraduate major among Bachelor's degree-holders.

⁴ The composition of major data includes all undergraduates enrolled at the respective college or university.

⁵ The composition of majors explains half of the overall variation in median earnings across schools.

EARNINGS AND ACADEMIC PREPARATION AND GRADUATE DEGREE ATTAINMENT

Two other factors that result in differences in earnings among four-year colleges are students' academic preparation and whether they go on to earn a graduate degree after completing their Bachelor's degree. If a college enrolls highly-prepared students and they go on to have high earnings in the labor market, how much should we credit the quality of the education the university provides relative to the quality of students it selects?

Similarly, many college graduates go on to earn graduate degrees, which lead to 28 percent higher earnings than Bachelor's degrees alone. If students attend a four-year college and then go on to earn graduate degrees, how much credit should the college which these students attended as undergraduates receive for their earnings relative to the college where they attended graduate school?

Neither of these questions have simple answers. To isolate these effects, we modify major-adjusted rankings to account for differences in academic preparation and graduate degree attainment (Table 3). Former students of the University of Colorado-Denver earn the most relative to what we would expect them to earn given their level of academic preparation and graduate degree attainment, followed by Georgetown University and the University of the Pacific.

Table 3. Former students of the University of Colorado-Denver earn the most relative to what we would expect them to earn given their majors, level of academic preparation, and graduate degree attainment.

RANK	STATE	INSTITUTION	EXPECTED EARNINGS*	MEDIAN EARNINGS	DIFFERENCE IN EXPECTED AND MEDIAN EARNINGS	GRADUATION RATE
1	CO	University of Colorado-Denver**	\$47,600	\$73,800	\$26,200	43%
2	DC	Georgetown University	\$61,800	\$83,300	\$21,500	93%
3	CA	University of the Pacific	\$45,700	\$66,400	\$20,700	57%
4	MA	Harvard University	\$67,000	\$87,200	\$20,200	97%
5	VA	Washington and Lee University	\$60,500	\$77,600	\$17,100	90%
6	CA	Stanford University	\$63,900	\$80,900	\$17,000	95%
7	CA	California State University-Bakersfield	\$31,700	\$48,100	\$16,400	39%
8	MA	Massachusetts Institute of Technology	\$75,900	\$91,600	\$15,700	93%
9	NC	Duke University	\$61,800	\$76,700	\$14,900	94%
10	PA	University of Pennsylvania	\$63,900	\$78,200	\$14,300	96%
11	PA	Holy Family University	\$36,700	\$49,900	\$13,200	58%
12	MN	Saint John's University	\$42,700	\$55,900	\$13,200	78%
13	MA	Massachusetts Maritime Academy	\$66,400	\$79,500	\$13,100	64%
14	CA	Pepperdine University	\$48,400	\$61,400	\$13,000	81%
15	CA	Mount St. Mary's College	\$37,300	\$50,200	\$12,900	61%
16	CA	National University	\$42,200	\$54,800	\$12,600	43%
17	NY	Molloy College	\$45,000	\$57,500	\$12,500	64%
18	CA	Chapman University	\$39,600	\$51,800	\$12,200	74%
19	MA	Bentley University	\$62,800	\$74,900	\$12,100	86%
20	CA	California State University-Stanislaus	\$33,000	\$44,900	\$11,900	50%

Source: Georgetown University Center on Education and the Workforce analysis of data from the U.S. Department of Education's College Scorecard, 2015.

*Based on students' ACT composite scores and likelihood of earning a graduate degree.

** Since the publication of our rankings, it was brought to our attention that the earnings data from the Department of Education for University of Colorado Denver inaccurately attributed earnings from a different campus to CU Denver, which would invalidate the rankings. The scorecard data used earnings from financial aid recipients who were at the University of Colorado Anschutz Medical Campus instead of University of Colorado Denver. A detailed description appears here: <http://www.ucdenver.edu/about/departments/InstitutionalResearch/InstitutionalCharacteristics/Pages/College-Scorecard.aspx>

METHODOLOGY AND DATA SOURCES

This report relies on data from the U.S. Department of Education's College Scorecard. The data are available for download here: <https://collegescorecard.ed.gov/data/>

Students who applied for financial aid were matched to their tax returns 10 years after initially filing for financial aid. The median earnings for these students were in turn matched to the university for which they sought financial aid.

We restricted the data to Bachelor's degree-granting institutions and excluded special focus institutions and tribal colleges.

We used regression analysis to predict former students' median earnings 10 years after first enrollment based on the share of students in different majors. The complete list of majors is:

- Agriculture, agriculture operations, and related sciences
- Architecture and related services
- Area, ethnic, cultural, gender, and group studies
- Biological and biomedical sciences
- Business, management, marketing, and related support services
- Communication, journalism, and related programs
- Communications technologies/technicians and support services
- Computer and information sciences and support services
- Construction trades
- Education
- Engineering
- Engineering technologies and engineering-related fields
- English language and literature/letters
- Family and consumer sciences/human sciences
- Foreign languages, literatures, and linguistics
- Health professions and related programs
- History
- Homeland security, law enforcement, firefighting and related protective services
- Legal professions and studies
- Liberal arts and sciences, general studies, and humanities
- Library science
- Mathematics and statistics
- Mechanic and repair technologies/technicians
- Military technologies and applied sciences
- Multi/interdisciplinary studies
- Natural resources and conservation
- Parks, recreation, leisure, and fitness studies
- Personal and culinary services
- Philosophy and religious studies
- Physical sciences
- Precision production
- Psychology
- Public administration and social service professions
- Science technologies/technicians
- Social sciences
- Theology and religious vocations
- Transportation and materials moving
- Visual and performing arts

Several majors include agriculture, agriculture operations, and related sciences; personal and culinary services; and transportation and materials moving are offered at only a few institutions. They are also included in the regression equation in order to more completely differentiate high- versus low-paying majors.

In Table 2, we subtracted the predicted earnings of the given composition of majors from the scorecard earnings, which is then used to rank the schools. Although we do not include the confidence intervals around the predictions, the reader should note that there may not be statistically significant differences in the earnings between the top and second ranked institutions if their earnings are very similar.

In Table 3, we adjust for student characteristics. We use the median ACT score and the share of holders of graduate and professional degrees in the student's zip code to adjust for different levels of college preparation and the possibility that the students went on to obtain a graduate degree. If those student characteristics were not reported in the scorecard data, a mean was substituted. The predicted earnings were subtracted from the reported earnings and the difference was used to rank the schools.

ACKNOWLEDGEMENTS

We would like to express our gratitude to the individuals and organizations whose generous support has made this report possible: Lumina Foundation (Jamie Merisotis and Holly Zanville), The Bill & Melinda Gates Foundation (Daniel Greenstein and Jennifer Engle) and The Joyce Foundation (Matthew Muench). We are honored to be partners in their mission of promoting postsecondary access and completion for all Americans.

Many have contributed their thoughts and feedback throughout the production of this report. We are grateful for our talented designers, meticulous editorial advisors, and trusted printers whose efforts were vital to our success. In addition, the dedication of the Georgetown Center's economists, analysts, writers, communications team, and operations staff was instrumental to production of this report, from conceptualization to completion.

- Jeff Strohl provided the initial impetus and research direction
- Andrea Porter provided strategic guidance
- Artem Gulish and Andrew Hanson contributed insightful comments and writing
- Ana Castanon, Monet Clark, Vikki Hart, and Hilary Strahota led the communications efforts, including design, editorial review, and public relations
- Coral Castro and Joe Leonard assisted with logistics and operations

THE VIEWS EXPRESSED IN THIS PUBLICATION ARE THOSE OF THE AUTHORS AND DO NOT NECESSARILY REPRESENT THOSE OF LUMINA FOUNDATION, THE BILL & MELINDA GATES FOUNDATION, THE JOYCE FOUNDATION, OR THEIR OFFICERS OR EMPLOYEES.

REPRINT PERMISSION

The Georgetown University Center on Education and the Workforce carries a Creative Commons license, which permits non-commercial re-use of any of our content when proper attribution is provided.



You are free to copy, display, and distribute our work, or include our content in derivative works, under the CEW's following conditions:



Attribution: You must clearly attribute the work to the Center on Education and the Workforce and provide a print or digital copy of the work to cewgeorgetown@georgetown.edu.

Our preference is to cite figures and tables as follows:

Source: Georgetown University Center on Education and the Workforce, *Ranking Your College*.



Noncommercial: You may not use this work for commercial purposes. Written permission must be obtained from the owners of the copy/literary rights and from Georgetown University for any publication or commercial use of reproductions.



Approval: If you are using one or more of our available data representations (figures, charts, tables, etc), please visit our website at cew.georgetown.edu/publications/reprint-permission for more information.

For the full legal code of this Creative Commons license, please visit creativecommons.org.

Should you need a form to be filled out by us, please email cewgeorgetown@georgetown.edu and we will respond in a timely manner.

Ranking Your College: Where You Go and What You Make
can be accessed online at cew.georgetown.edu/collegerankings

The Georgetown University Center on Education and the Workforce

3300 Whitehaven Street, NW, Suite 3200

Washington, D.C. 20007



Find out how much students earn 10 years
after enrolling at more than 1,400
American colleges and universities.

ANALYSIS OF THE COLLEGE SCORECARD

GEORGETOWN UNIVERSITY



Center
on Education
and the Workforce

McCourt School of Public Policy