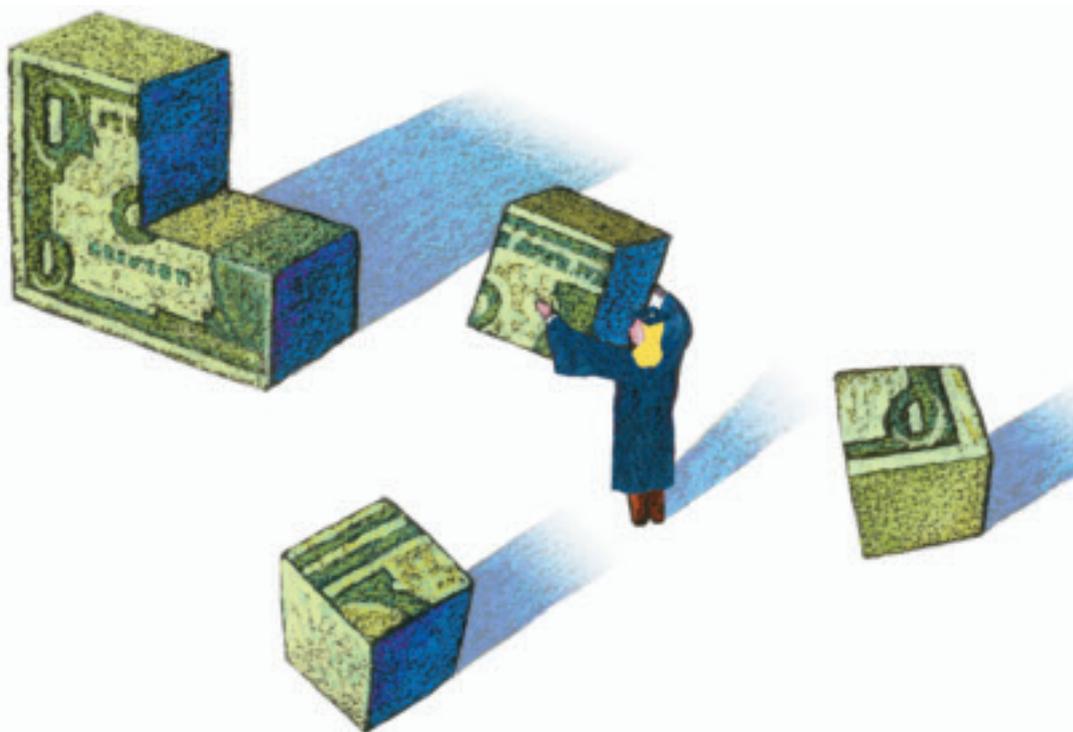


EXECUTIVE SUMMARY

The College Payoff

Education, Occupations, Lifetime Earnings



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EDUCATION
OCCUPATIONS
LIFETIME EARNINGS

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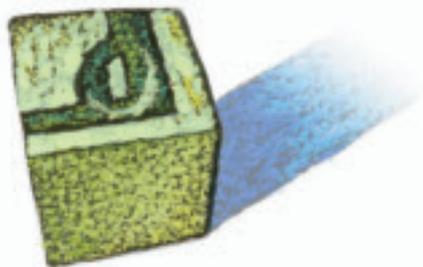
on Education

and the Workforce

Education and earnings interact in complex and often unexpected ways—but there are rules to the game.

The College Payoff, a new paper from the Georgetown University Center on Education and the Workforce, uses in-depth data analysis to identify, illuminate and elucidate those rules.

This executive summary provides a glimpse of the education and earnings game, and cracks open the rule book for examination.



The **Rule Book**

Rule **No.1:**

Degree Level Matters.

But

Rule **No.2:**

Occupational choice can trump degree level. People with less education in high-paying occupations can out-earn people with more education in less remunerative occupations.

But

Rule **No.3:**

While occupation can sometimes trump education, degree level still matters most within individual occupations.

But

Rule **No.4:**

Race/ethnicity and gender are wild cards that matter more than education or occupation in determining earnings.

For further detail on these rules, read on.

Rule No. 1: Degree Level Matters. On average, people with more education make more than those with less.

Obtaining a postsecondary credential is almost always worth it, as evidenced by higher earnings over a lifetime. The higher the level of educational attainment, the higher the payoff. What's more, the gap is widening. In 2002, a Bachelor's degree-holder could expect to earn 75 percent more over a lifetime than someone with only a high school diploma. Today, that premium is 84 percent.

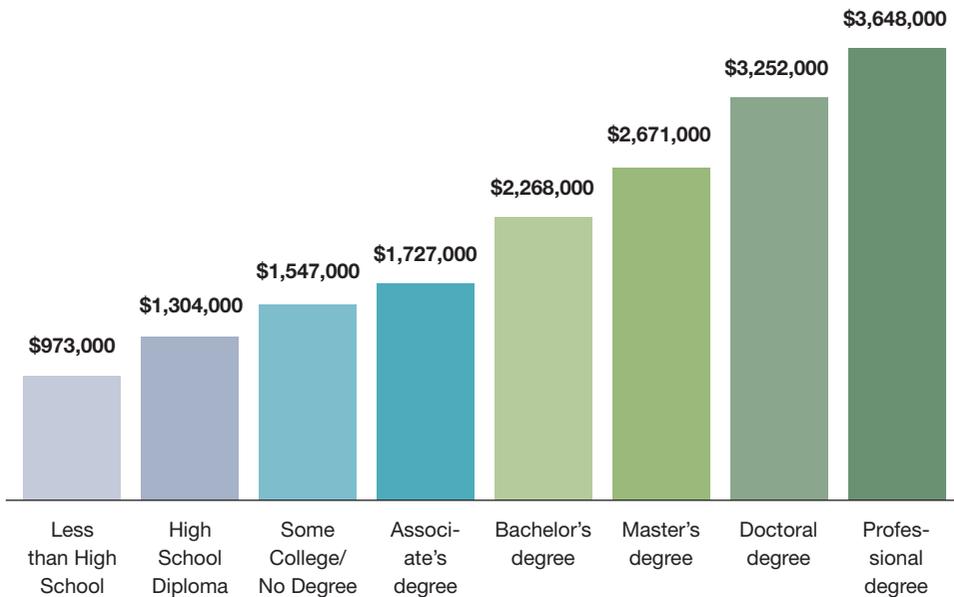
On average:

- A high school dropout can expect to earn \$973,000 over a lifetime.
- Someone with a high school diploma can expect to earn \$1.3 million over a lifetime.
- A worker with some college but no degree earns \$1.5 million over a lifetime.
- An Associate's degree-holder earns \$1.7 million over a lifetime.
- A worker with a Bachelor's degree will earn \$2.3 million over a lifetime.

Graduate degrees confer even higher earnings:

- A Master's degree-holder earns \$2.7 million over a lifetime.
- A Doctoral degree-holder earns \$3.3 million over a lifetime.
- A Professional degree-holder earns \$3.6 million over a lifetime.

Figure 1: Lifetime Earnings by Educational Attainment.



Rule No.2 Occupations can trump degree levels. People with less education can sometimes out-earn people with more, principally because of occupational differences.

There are significant earnings variations between different levels of educational attainment.

- 31% of high school dropouts earn more than the median earnings of workers with high school diplomas.
- 37% of those with a high school diploma make more than the median earnings of workers with some college/no degree.
- 42% of people with some college/no degree earn more than the median earnings of workers with an Associate’s degree.
- 28% of people with an Associate’s degree make more than the median of workers with a Bachelor’s degree.
- 40% of people with a Bachelor’s degree earn more than the median of workers with a Master’s degree.
- 36% of people with a Master’s degree make more than the median of workers with a Doctoral degree.
- 37% of people with a Doctoral degree make more than the median of workers with a Professional degree.

These figures reflect a critical aspect of the education and earnings game: the actual job that someone does—the work they perform—has a significant effect on earnings. Today, careers follow occupational paths. These occupations—engineering or accounting for example—can be found in any number of industries (you can be an accountant for a bakery or for an airplane manufacturer). As a result, today’s workers are more attached to the occupations they fill than to the industries in which they work.

Earnings today, then, are driven by a combination of educational attainment and occupation. Some occupational clusters pay better than others—for example, the STEM occupations earn much more than teachers, regardless of educational attainment. In fact, an engineer with some college/no degree or a postsecondary certificate can earn more than a teacher with a Bachelor’s degree.

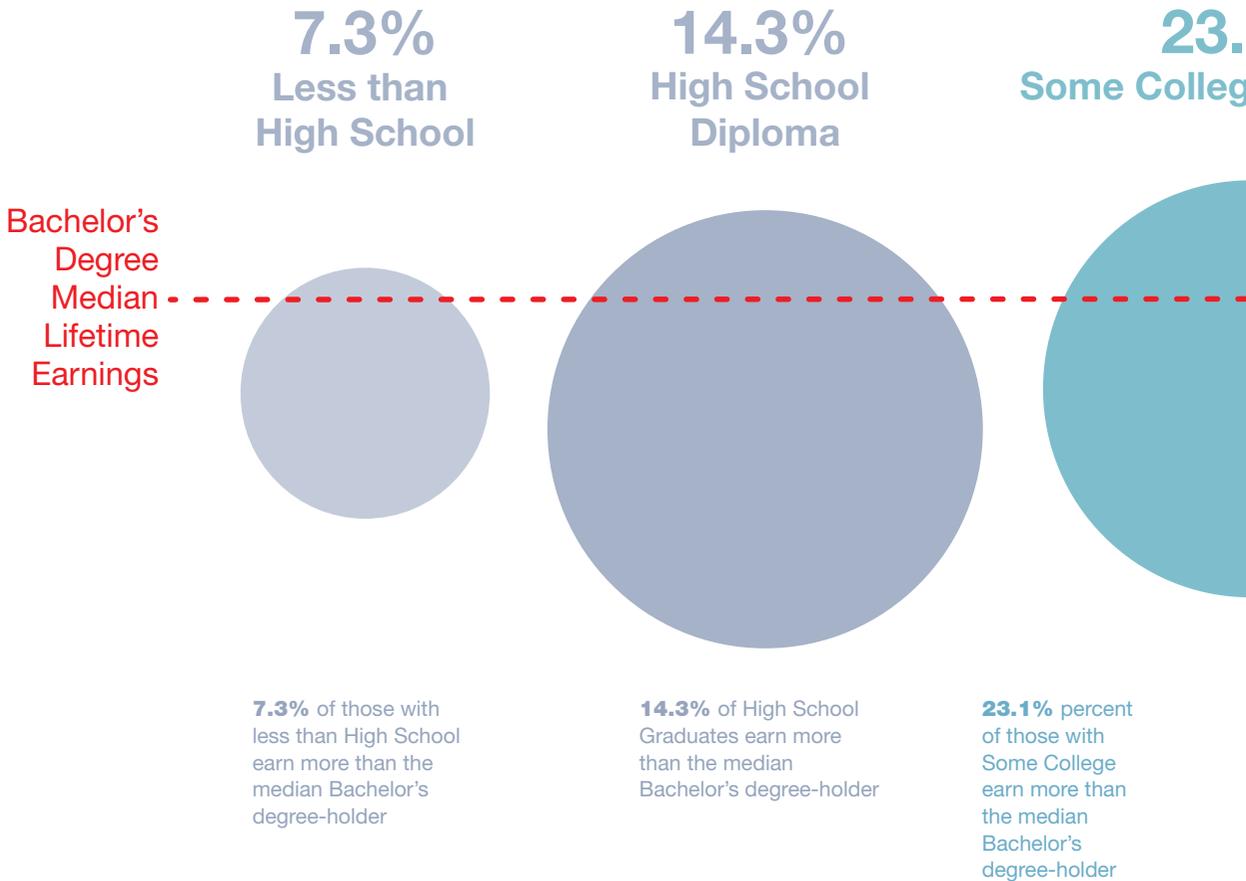
Figure 2: There are many people who make more than their more highly-educated counterparts.

	Less than High School	High School Diploma	Some College/No Degree	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree
Professional	1.3%	2.4%	4.8%	4.9%	17.2%	24.2%	36.9%
Doctoral	2.3%	4.6%	8.6%	9.5%	26.7%	35.5%	.
Master's	4.6%	9.2%	15.9%	19.2%	39.9%	.	.
Bachelor's	7.3%	14.3%	23.1%	28.2%	.	.	.
Associate's	16.3%	29.8%	41.9%	.	.	.	.
Some College/No Degree	21.3%	36.6%	.	.	.	.	.
High School Diploma	31.4%	.	.	.	.	.	.

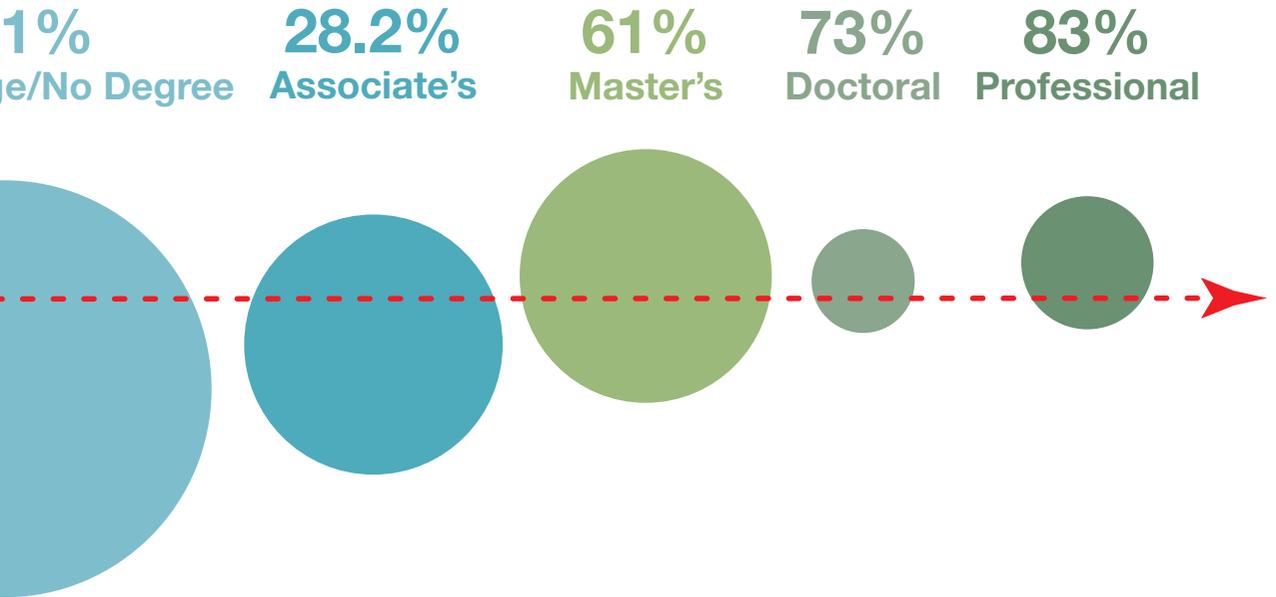
How to read this chart: Taking the less than high school column and reading down, it shows that 1.3% of people with less than a high school education make the same amount or more as the median earnings of someone with a Professional degree. 2.3% of people with less than high school make the same amount or more as the median for someone with a Doctoral degree, 4.6% of people with less than a high school education make the same amount or more than someone with a Master’s degree, and so on.

Earnings Overlap

In a surprising number of cases, people with less educational attainment earn more than those with more. This graphic represents just how much earnings overlap there is, relative to workers with a Bachelor's degree.



How to read this chart: This graphic shows the amount of earnings overlap based on educational attainment. The red dotted line represents the median earnings of Bachelor's degree-holders. The size of the each circle represents the number of people with each credential, and the amount that the circle is crossing the line represents the percentage of people with each credential that earn more than the median earnings for Bachelor's degree-holders. Therefore, about 7 percent of the less than high school circle is crossing the line, meaning that about 7 percent of people with less than a high school diploma earn more than the median for Bachelor's degree-holders.



28.2% of those with Associate's degrees earn more than the median Bachelor's degree-holder

61% of those with Master's degrees earn more than the median Bachelor's degree-holder

73% of those with Doctoral degrees earn more than the median Bachelor's degree-holder

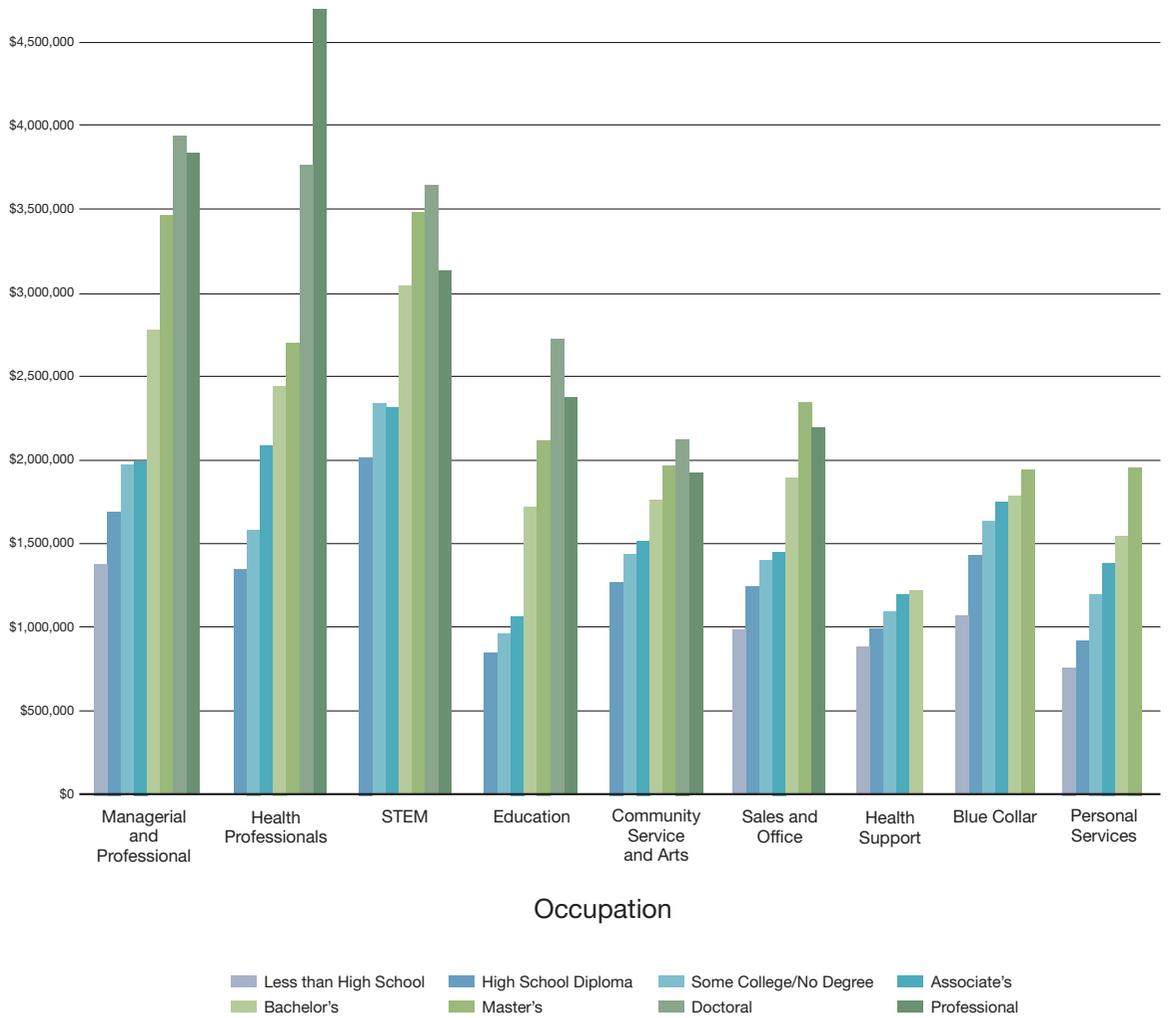
83% of those with Professional degrees earn more than the median Bachelor's degree-holder

Rule No.3 While occupation can sometimes trump education, degree level still matters most within individual occupations¹.

Within an occupation, workers with higher educational attainment almost always make more than those with less, rewarding employees who continue their studies, even when they keep the same job. For example, accountants and auditors with a high school diploma make \$1.5 million over a lifetime, compared with \$1.7 million for accountants and auditors with some college, \$2.4 million for accountants and auditors with a Bachelor’s degree, and \$3 million for accountants and auditors with a graduate degree. The same pattern generally holds within all occupations.

At the highest end of the education and earnings scale, the picture gets fuzzier, though. In some occupations, such as STEM, Doctoral degree-holders earn more than their Professional degree-holding counterparts. In others, notably Healthcare, where Professional degree-holders are doctors and dentists, those with Professional degrees make more than their Doctoral degree counterparts.

Figure 3: Lifetime earnings by education and occupation, 2009 dollars.



¹Undergraduate major, because of its linkages to occupations, also matters. See Carnevale, Anthony, Jeff Strohl, and Michelle Melton. "What's it Worth?: The Economic Value of College Majors." Washington, DC: Georgetown University Center on Education and the Workforce, 2011.

Rule No.4 Race/ethnicity and gender are wild cards that can trump everything else in determining earnings.

Women earn less than men, even when they work the same number of hours—a gap that persists across all levels of educational attainment. In fact, women with a Bachelor’s degree earn about as much as men with some college education but no degree. On average, to earn as much as men with a Bachelor’s degree, women must obtain a Doctoral degree.

Similar gaps also exist by race and ethnicity. African-Americans and Latinos earn less than their White counterparts, even among the most highly-educated workers. African-Americans and Latinos with Master’s degrees don’t exceed the median lifetime earnings of Whites with Bachelor’s degrees. However, at the graduate degree level, Asians make more than all other races/ethnicities, including Whites.

Figure 4: Women make less than men at every level of educational attainment.

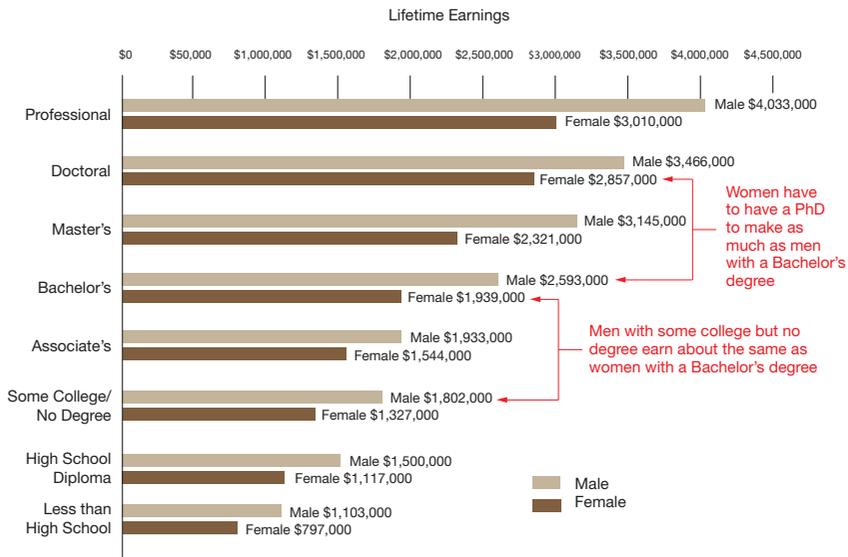
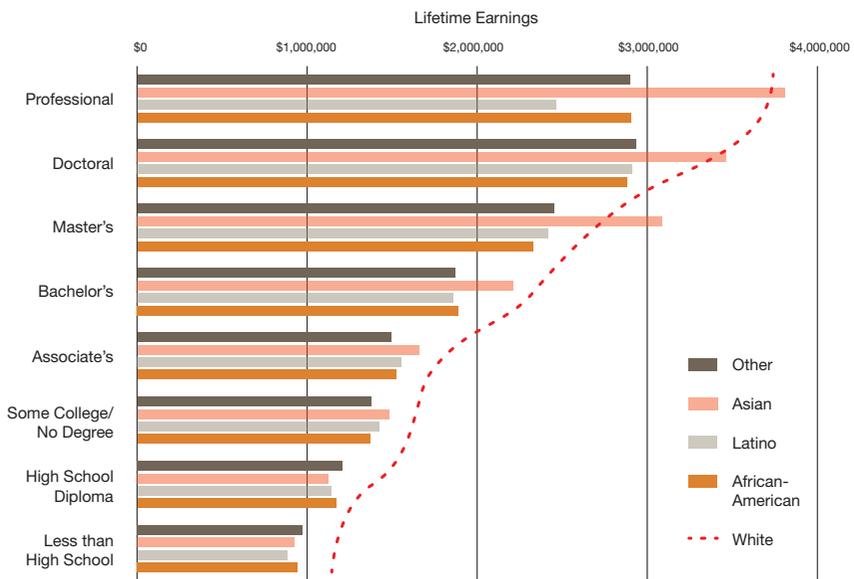


Figure 5: African-Americans and Latinos lag behind Whites and Asians at all levels of educational attainment.



Keeping these rules in mind will help readers as they delve deeper into *The College Payoff*, and start to make sense of the game of education and earnings that plays such a pivotal role in the U.S. economy— and the lives of American workers.

Top Five Earning Occupations by Educational Attainment The best-paying occupations for those with less than a high school diploma are in construction, while managerial positions pay off the most for people at every level of educational attainment. Physicians earn the most over a lifetime— nearly \$6 million.

Figure 6: Top Five-earning Occupations for People with Less than a High School Diploma

Lifetime earnings in 2009 dollars

Less than High School	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	\$1,741,000
Less than High School	Construction Managers	1,549,000
Less than High School	Industrial and Refractory Machinery Mechanics	1,494,000
Less than High School	First-Line Supervisors/Managers of Production and Operating Workers	1,474,000
Less than High School	Construction Equipment Operators, except Paving, Surfacing, and Tamping Equipment Operators	1,435,000

Figure 7: Top Five-earning Occupations for People with a High School Diploma

Lifetime earnings in 2009 dollars

High School Diploma	General and Operations Managers	\$2,156,000
High School Diploma	Construction Managers	2,004,000
High School Diploma	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	1,975,000
High School Diploma	Miscellaneous Managers, including Engineering, Funeral Directors, Postmasters and Mail Superintendents	1,876,000
High School Diploma	Electricians	1,834,000

Figure 8: Top Five-earning Occupations for People with Some College/No Degree

Lifetime earnings in 2009 dollars

Some College/No Degree	Chief Executives and Legislators	\$3,233,000
Some College/No Degree	Marketing and Sales Managers	2,536,000
Some College/No Degree	General and Operations Managers	2,476,000
Some College/No Degree	Construction Managers	2,325,000
Some College/No Degree	Police Officers	2,229,000

Figure 9: Top Five-earning Occupations for People with an Associate's Degree

Lifetime earnings in 2009 dollars

Associate's Degree	Chief Executives and Legislators	\$2,997,000
Associate's Degree	Fire Fighters, Fire Inspectors	2,636,000
Associate's Degree	Marketing and Sales Managers	2,514,000
Associate's Degree	General and Operations Managers	2,459,000
Associate's Degree	Police Officers	2,435,000

Figure 10: Top Five-earning Occupations for People with a Bachelor's Degree

Lifetime earnings in 2009 dollars

Bachelor's Degree	Chief Executives and Legislators	\$4,483,000
Bachelor's Degree	Computer and Information Systems Managers	3,721,000
Bachelor's Degree	Aerospace, Biomedical, Agricultural, Chemical, Computer Hardware, Environmental, Marine, Materials, Petroleum, Mining, Geological Engineers	3,558,000
Bachelor's Degree	Computer Software Engineers	3,554,000
Bachelor's Degree	Marketing and Sales Managers	3,494,000

Figure 11: Top Five-earning Occupations for People with a Graduate Degree

Lifetime earnings in 2009 dollars

Graduate Degrees*	Physicians and Surgeons	\$5,959,000
Graduate Degrees*	Chief Executives and Legislators	5,131,000
Graduate Degrees*	Pharmacists	4,390,000
Graduate Degrees*	Marketing and Sales Managers	4,268,000
Graduate Degrees*	Financial Managers	4,176,000

Bottom Five Earning Occupations by Educational Attainment At the high school or below level, the lowest-earning occupations are in food and personal services. At all levels of educational attainment, however, those who make a career out of helping others earn very little financial reward.

Figure 12: Bottom Five-earning Occupations for People with Less than a High School Diploma

Lifetime earnings in 2009 dollars

Less than High School	Maids and Housekeeping Cleaners	\$663,000
Less than High School	Personal and Home Care Aides	678,000
Less than High School	Sewing Machine Operators	692,000
Less than High School	Food Preparation Workers	709,000
Less than High School	Cashiers	713,000

Figure 13: Bottom Five-earning Occupations for People with a High School Diploma

Lifetime earnings in 2009 dollars

High School Diploma	Barbers, Hairdressers, Hairstylists, and Cosmetologists	\$592,000
High School Diploma	Maids and Housekeeping Cleaners	727,000
High School Diploma	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop, Waiters and Waitresses	775,000
High School Diploma	Personal and Home Care Aides	786,000
High School Diploma	Cooks	789,000

Figure 14: Bottom Five-earning Occupations for People with Some College/No Degree

Lifetime earnings in 2009 dollars

Some College/No Degree	Barbers, Hairdressers, Hairstylists, and Cosmetologists	\$485,000
Some College/No Degree	Teacher Assistants	752,000
Some College/No Degree	Cashiers	919,000
Some College/No Degree	Nursing, Psychiatric, and Home Health Aides	1,030,000
Some College/No Degree	Real Estate Brokers and Sales Agents	1,070,000

Figure 15: Bottom Five-earning Occupations for People with an Associate's Degree

Lifetime earnings in 2009 dollars

Associate's Degree	Teacher Assistants	\$782,000
Associate's Degree	Cashiers	899,000
Associate's Degree	Nursing, Psychiatric, and Home Health Aides	1,101,000
Associate's Degree	Receptionists and Information Clerks	1,117,000
Associate's Degree	Janitors and Building Cleaners	1,179,000

Figure 16: Bottom Five-earning Occupations for People with a Bachelor's Degree

Lifetime earnings in 2009 dollars

Bachelor's Degree	Real Estate Brokers and Sales Agents	\$1,477,000
Bachelor's Degree	Bookkeeping, Accounting, and Auditing Clerks	1,481,000
Bachelor's Degree	Secretaries and Administrative Assistants	1,520,000
Bachelor's Degree	Counselors	1,521,000
Bachelor's Degree	Social Workers	1,571,000

Figure 17: Bottom Five-earning Occupations for People with a Graduate Degree

Lifetime earnings in 2009 dollars

Graduate Degrees*	Secretaries and Administrative Assistants	\$1,597,000
Graduate Degrees*	Clergy	1,799,000
Graduate Degrees*	Retail Salespersons	1,885,000
Graduate Degrees*	Counselors	1,955,000
Graduate Degrees*	First-Line Supervisors/Managers of Retail Sales Workers	1,970,000

*Master's Degrees, Professional Degrees and Doctoral Degrees

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The College Payoff is comprised of an executive summary and a full report. Both can be accessed online at cew.georgetown.edu/collegepayoff

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