Career Outlook

BLS

Should I get a master's degree?

Elka Torpey and Dalton Terrell | September 2015

You might want to earn a master's degree for the potential increase in earnings it may deliver. But there's more to going to grad school than the chance for extra income, especially because the payoff varies by occupation.

In 2013, the median annual wage for full-time workers ages 25 and over whose highest level of education was a master's degree was $68,000, compared with $56,000 for those whose highest level was a bachelor's degree—a $12,000 a year wage premium. Not all workers earn a premium. In some occupations, workers with a master's degree earned about the same as, or even less than, those with a bachelor's degree.

Potential wages are just one of the factors to consider before embarking on a graduate education. In addition to showing how much more—or less—workers who had a master's degree earned compared with workers who had a bachelor's degree, this article highlights other questions to think about when deciding whether to pursue a master's degree.

Wage premiums for a master's degree

In some occupations, you're likely to need a master's degree to qualify for entry-level jobs. (See box.) In others, a master's degree may not be required, but having one might lead to advancement or higher pay.

This article focuses on several career fields in which workers often earn more with a master's degree than with a bachelor's degree. These career fields are discussed in the following sections:

- Business
- Education
- Healthcare and social service
- STEM
- Other

These areas are discussed in order of the number of degrees conferred, from most to least, according to 2012–13 data from the National Center for Education Statistics (NCES).

The analysis of wage premiums uses 2013 American Community Survey (ACS) data for full-time wage and salary workers ages 25 and over. It compares median annual wages, for workers who had a master's degree with those for workers in the same occupation who had a bachelor's degree. These data do not account for experience, training, and certifications, which may, in turn, account for wage differences. The median wage is the point at which half of workers earned more than the amount, and half earned less.

In each section below, tables show select occupations that reflect a wage premium when obtaining a master's degree in the field. The analysis focuses on the percentage wage premiums, or percentage difference in the wages for those holding a master's degree compared with those in the same occupation who have a bachelor's degree. The tables include data for both percentage and numeric wage premiums.

There could be lots of reasons why workers with a master's degree had higher or lower wages than did those who had a bachelor's degree. Master's degree holders, for example, might have qualified for better paying jobs and have earned more than their counterparts who had a bachelor's degree. Or bachelor's degree holders—especially in occupations in which minimum educational requirements are increasing—might have had more years of experience and, as a result, might have had higher wages than workers with a master's degree.

Business

More master's degrees were awarded in business than in any other field, during 2012–13. And among all occupations in 2013, business, financial, and sales occupations had some of the highest wage premiums for workers with a master's degree. (See table 1.)

Securities, commodities, and financial services sales agents had the biggest wage premium of any of these occupations: workers who had a master's degree earned a wage that was nearly 90 percent higher than that for workers with a bachelor's degree. Many of these sales agents earned a master's degree in business administration (MBA), which may be required for high-level jobs.

Table 1. Selected business occupations in which workers with a master's degree earned a premium over workers with a bachelor's degree, 2013

Occupation	Employment with bachelor's degree	Percent with bachelor's degree	Employment with master's degree	Percent with master's degree	Median annual wage for bachelor's degree	Median annual wage for master's degree	Wage premium amount(1)	Wage premium percent
See footnotes at end of table.								
Securities, commodities, and financial services sales agents	113,110	54%	32,865	16%	$90,000	$170,000	$80,000	89%
Logisticians	33,098	34	8,239	8	54,000	82,000	28,000	52
Transportation, storage, and	41,935	23	15,415	9	62,000	90,000	28,000	45

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Occupation	Employment with bachelor's degree	Percent with bachelor's degree	Employment with master's degree	Percent with master's degree	Median annual wage for bachelor's degree	Median annual wage for master's degree	Wage premium amount(1)	Wage premium percent
distribution managers								
Financial managers	400,770	41	182,678	19	78,000	110,000	32,000	41
Market research analysts and marketing specialists	114,105	54	49,705	23	65,000	90,000	25,000	38
Marketing and sales managers	380,429	51	125,900	17	80,000	110,000	30,000	38
Property, real estate, and community association managers	92,579	27	23,380	7	56,000	76,000	20,000	36

Footnotes: (1) The wage premium represents the wage increase for workers with a master's degree over that for workers with a bachelor's degree in the occupation.
Source: U.S. Census Bureau, American Community Survey

Other business occupations not shown in the table had wage premiums for a master's degree, including accountants and auditors, general and operations managers, and human resources workers.

However, in some business occupations, having a master's degree may not pay a premium. Training and development managers with a master's degree, for example, had a 6-percent lower median wage than did these workers with a bachelor's degree.

Education

More than 1 out of every 5 master's degrees was awarded in education in 2012–13. And the payoff for these degrees was usually relatively high. (See table 2.)

Education administrators had the highest percentage wage premium, with 44 percent higher wages for master's degree holders than for bachelor's degree holders. The wage premium for preschool and kindergarten teachers was nearly as high, at 43 percent.

Table 2. Selected education occupations in which workers with a master's degree earned a premium over workers with a bachelor's degree, 2013

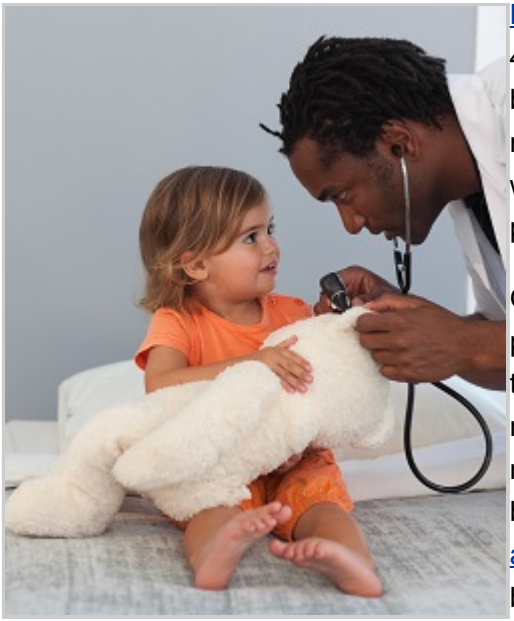
Occupation	Employment with bachelor's degree	Percent with bachelor's degree	Employment with master's degree	Percent with master's degree	Median annual wage for bachelor's degree	Median annual wage for master's degree	Wage premium amount(1)	Wage premium percent
Education administrators	170,873	23%	338,917	46%	$52,000	$75,000	$23,000	44%
Preschool and kindergarten teachers	104,060	33	42,953	14	30,000	43,000	13,000	43
Elementary and middle school teachers	1,263,179	43	1,407,469	48	42,100	54,000	11,900	28
Secondary school teachers	270,998	41	338,808	51	45,000	56,000	11,000	24
Special education teachers	69,965	33	107,508	51	42,000	52,000	10,000	24
Other teachers and instructors	108,511	34	60,686	19	45,000	55,000	10,000	22
Postsecondary teachers	122,980	13	288,997	30	43,800	50,000	6,200	14

Footnotes: (1) The wage premium represents the wage increase for workers with a master's degree over that for workers with a bachelor's degree in the occupation.
Source: U.S. Census Bureau, American Community Survey

The lowest wage premiums were for postsecondary teachers, who frequently needed a Ph.D. to qualify for entry-level jobs. About 30 percent of these workers had a master’s degree, about 13 percent had a bachelor’s degree, and nearly all remaining workers had a doctoral degree. Postsecondary teachers without a doctoral degree might work as a graduate teaching assistant or qualify to teach a subject such as nursing (with a master’s degree) or vocational education (with a bachelor’s degree).

Healthcare and social service

The fast-growing fields of healthcare and social service were common for master’s degree awarded during 2012–13. Many occupations in these fields had wage premiums for a master’s degree. (See table 3.)



Physician assistants with a master's degree had a median wage that was 44 percent higher than that of workers with a bachelor's degree—the biggest wage premium of the occupations in table 3. Prospective workers might want to get a master's degree anyway, and not just for a higher wage: By 2020, the few remaining bachelor's degree programs that prepare workers for this occupation will be phased out.

Other occupations in this group that are not shown in table 3 had a wage premium for master's degree holders over bachelor's degree holders, but the proportion of workers with a master's degree varied. For example, nearly 80 percent of nurse practitioners and nurse midwives had a master's degree, while only about 6 percent of these workers had a bachelor's. In contrast, about 7 percent of clinical laboratory technologists and technicians had a master's degree, while more than 40 percent had a bachelor's.

Table 3. Selected healthcare and social service occupations in which workers with a master's degree earned a premium over workers with a bachelor's degree, 2013

Occupation	Employment with bachelor's degree	Percent with bachelor's degree	Employment with master's degree	Percent with master's degree	Median annual wage for bachelor's degree	Median annual wage for master's degree	Wage premium amount(1)	Wage premium percent
See footnotes at end of table.								
Physician assistants	25,242	23%	46,332	43%	$66,000	$95,000	$29,000	44%
Counselors	132,204	26	238,824	48	37,000	50,000	13,000	35
Social and human service assistants	29,078	31	10,605	11	37,000	50,000	13,000	35
Social and community service managers	107,480	37	87,412	30	50,000	65,000	15,000	30
Medical and health services managers	171,282	32	127,933	24	70,000	90,000	20,000	29

Table 3. Selected healthcare and social service occupations in which workers with a master's degree earned a premium over workers with a bachelor's degree, 2013

Occupation	Employment with bachelor's degree	Percent with bachelor's degree	Employment with master's degree	Percent with master's degree	Median annual wage for bachelor's degree	Median annual wage for master's degree	Wage premium amount(1)	Wage premium percent
Social workers	279,509	42	227,472	34	40,000	50,000	10,000	25
Registered nurses	989,874	46	186,060	9	63,000	75,000	12,000	19

Footnotes: (1) The wage premium represents the wage increase for workers with a master's degree over that for workers with a bachelor's degree in the occupation.
Source: U.S. Census Bureau, American Community Survey

Not all healthcare and social service occupations had wage premiums for workers with a master's degree. For example, even though occupational therapists typically need a master's degree to enter the occupation, there was no difference in median wages between workers with a master's degree and those with a bachelor's degree. Occupational therapists are one of several occupations that may be affected by education requirements that have changed: The most experienced workers, who are also likely to have the highest pay, may have started working before a master's degree became the minimum requirement.

STEM

Science, technology, engineering, and mathematics (STEM) fields also had many master's degree awarded during 2012–13. Table 4 shows selected STEM occupations in which workers with a master's degree had wage premiums. But not all occupations in these fields had a payoff for this type of degree.

Mathematicians, statisticians, and workers in other math-related occupations had a 33 percent higher wage with a master's degree than did those with a bachelor's degree, the highest of the occupations in table 4. Computer systems analysts and computer programmers are among the other STEM occupations that had a wage premium for master's degree holders.

Table 4. Selected STEM occupations in which workers with a master's degree earned a premium over workers with a bachelor's degree, 2013

Occupation	Employment with bachelor's degree	Percent with bachelor's degree	Employment with master's degree	Percent with master's degree	Median annual wage for bachelor's degree	Median annual wage for master's degree	Wage premium amount(1)	Wage premium percent
See footnotes at end of table.								
Mathematicians, statisticians, and other miscellaneous mathematical science occupations	12,613	32%	15,340	38%	$60,000	$80,000	$20,000	33%

Table 4. Selected STEM occupations in which workers with a master's degree earned a premium over workers with a bachelor's degree, 2013

Occupation	Employment with bachelor's degree	Percent with bachelor's degree	Employment with master's degree	Percent with master's degree	Median annual wage for bachelor's degree	Median annual wage for master's degree	Wage premium amount(1)	Wage premium percent
Environmental scientists and geoscientists	30,737	47	25,079	38	62,000	80,000	18,000	29
Network and computer systems administrators	76,462	39	21,479	11	70,000	88,000	18,000	26
Web developers	63,354	54	18,520	16	61,000	75,000	14,000	23
Biological scientists	26,993	43	21,414	34	50,000	60,000	10,000	20
Chemists and materials scientists	35,304	49	15,473	22	60,000	71,000	11,000	18
Information security analysts	23,569	45	8,658	17	85,000	100,000	15,000	18

Footnotes: (1) The wage premium represents the wage increase for workers with a master's degree over that for workers with a bachelor's degree in the occupation.
Source: U.S. Census Bureau, American Community Survey

Wage premiums for engineers varied by specialty. Civil engineers, mechanical engineers, and architectural and engineering managers, for example, had median wages that were between 9 and 13 percent more for workers who had a master's degree compared with those of workers who had a bachelor's degree. In contrast, petroleum, mining, and geological engineers had a median wage that was about 7 percent less for workers with a master's degree. And chemical engineers had a median wage that was about the same for workers who had either education level.

Other

Master's degrees were awarded in a variety of other fields during 2012–13. But whether the degree resulted in a wage premium for workers depended on the occupation. (See table 5.)

Librarians, who typically need a master's degree for entry-level jobs, had the greatest percentage wage premium of the occupations in table 5. Their median wage was about 30 percent higher for workers with a master's degree than for those with a bachelor's degree.

Public relations specialists and recreation and fitness workers were also among the other occupations in which workers with a master's degree had higher median wages than those with a bachelor's degree.

Table 5. Selected other occupations in which workers with a master's degree earned a premium over workers with a bachelor's degree, 2013

Occupation	Employment with bachelor's degree	Percent with bachelor's degree	Employment with master's degree	Percent with master's degree	Median annual wage for bachelor's degree	Median annual wage for master's degree	Wage premium amount(1)	Wage premium percent
Librarians	26,432	21%	73,574	59%	$40,000	$52,000	$12,000	30%
First-line supervisors of office and administrative support workers	285,885	25	74,617	7	55,000	70,000	15,000	27
Editors	67,405	61	21,120	19	50,000	63,000	13,000	26
Archivists, curators, and museum technicians	10,670	33	14,581	45	41,300	50,000	8,700	21
Aircraft pilots and flight engineers	54,987	61	11,159	12	100,000	120,000	20,000	20
Designers	225,584	49	40,852	9	52,000	62,000	10,000	19
Production, planning, and expediting clerks	61,185	23	17,914	7	50,000	59,000	9,000	18

Footnotes: (1) The wage premium represents the wage increase for workers with a master's degree over that for workers with a bachelor's degree in the occupation.
Source: U.S. Census Bureau, American Community Survey

But in some occupations, workers with a master's degree had lower wages than their counterparts who had a bachelor's degree. Actors and urban and regional planners are two examples of this.

To earn—or not to earn—a master's degree

In 2013, ACS data show that about 10 percent of full-time wage and salary workers ages 25 and over had a master's degree. And the number of master's degrees awarded is expected to continue increasing, according to NCES.

Should you join that growing number? Consider these three questions to help you decide whether pursuing a master's degree makes sense for you.

Will a degree help me?

There may be benefits to earning a master's degree that are unrelated to the potential wage premium in your desired occupation. But having this level of education might not necessarily help you meet your goals.

Start by asking yourself, "Why do I want a master's degree?" Some master's degree programs are academically focused; that is, the primary objective is to study a subject in greater depth. Other programs are geared toward preparing you for a job in the occupation.

If your goal is to get a job, identify your ideal career and learn as much about it as you can. Career resources can help, but firsthand accounts are important. Talk to current workers to find out what employers look for when hiring—and to help you identify which master's degree programs may be a good fit for you. Find people to talk to by tapping into your network and contacting your undergraduate school's alumni career center. Professional associations for the occupation you're interested in also may have workers who agree to serve as mentors.

Also, review job postings. If most of the postings say that a master's degree is required or preferred, then you can feel more confident that your time and money would be well spent earning the degree.

Is it worth the expense?

There can be a financial benefit to earning a master's degree, but it is often not without costs. You'll need to spend about 2 years—the length of most master's programs—in school. During that time, if you work part time or not at all, you probably won't earn as much as you would working full time. And, unless an employer or someone else is paying for it, you'll need to spend money on tuition, books, and other expenses.

Average graduate school tuition and fees were $16,435 per year in 2012–13, according to NCES, but costs vary by program. And nearly half of all students enrolled in master's degree programs financed those costs through loans during the 2011–12 academic year, NCES data show.

When researching master's degree programs, look into the types and amounts of financial aid or other support, such as scholarships or fellowships, they typically offer. Financial aid officers at schools for your prospective

programs can tell you more about these or other options available, including on-campus employment and teaching assistantships, which may help to make a program more affordable.

Especially if you're among the majority of students who need to repay loans, consider how much you're likely to earn after getting a master's degree when calculating the financial pros and cons. Research wages in occupations you would likely qualify for and study the data showing wage premiums to determine whether going to graduate school is right for you.

You might be able to control educational costs by getting a job and finding out if your employer offers tuition reimbursement, often in exchange for your commitment to continue working for that employer for a specified amount of time.

What are my alternatives?

Depending on your motivation for pursuing a master's degree, you may want to evaluate other options.

For example, if you're currently working and want to earn more, you could ask your employer for a raise or for a promotion to a higher paying position. If you seek a career change, you can look for a new job or switch to a different industry or occupation.

Getting work experience often leads to advancement or higher pay, and employers may value it more than they do a graduate education. Honing your skills in the working world also may be helpful if you want to pursue a master's degree at a later time. For example, applicants who have worked for several years may increase their chances of acceptance into many MBA programs.

Weigh the advantages of other types of education, as well. In some occupations, a doctoral or professional degree may be more beneficial than a master's degree. About half of psychologists had a master's degree in 2013, for example, but another one-third of these workers had a doctoral degree—and those with a doctoral degree had a median annual wage that was 46 percent higher than that of psychologists with a master's degree.

Another option is to get a certificate or professional certification. These credentials can help you get career-related skills in many fields, such as computer science and healthcare, often in less time than it would take to earn a graduate degree. And some certificate program credits can be applied toward a master's degree, keeping the option open for you to pursue that degree another time.

For more information

Information about the education typically required for entry-level jobs for hundreds of occupations, including the ones in this article, is available in the *Occupational Outlook Handbook (OOH)*. *OOH* profiles also include details about job tasks, outlook, work environment, and more.

More data about wages by degree within occupations are available from the U.S. Census Bureau's American Community Survey.

And the BLS employment projections program has additional data on education and training.

The decision about whether to pursue higher education differs for everyone. A career counselor or other advisor can help evaluate your situation to determine what's right for you. Many colleges and universities have career services for alumni.

CareerOneStop, sponsored by the U.S. Department of Labor, has additional resources and links to local American Job Centers, which provide assistance to jobseekers. And O*NET OnLine is another helpful tool for career exploration and analysis.

The National Career Development Association also offers advice for finding and choosing a career counselor.

Learn more about how to pay for graduate school with information from the U.S. Department of Education.

Occupations that typically require a master's degree at the entry level

These 33 occupations are among those that BLS designates as typically needing a master's degree for entry-level jobs. That doesn't mean that all workers in these occupations have a master's degree. Some might have higher or lower levels of education—but a master's degree is typically required for someone seeking to enter the occupation.

Additional experience or training may be required to enter these occupations. For example, education administrators in elementary and secondary schools—commonly known as school principals—typically must have worked as teachers or in another related occupation for 5 years or more, and many must be licensed as school administrators. And workers such as mental health counselors typically must complete an internship or residency program and be licensed by their state.

Anthropologists and archeologists	Healthcare social workers	Nurse practitioners
Archivists	Historians	Nursing instructors and teachers, postsecondary
Art, drama, and music teachers, postsecondary	Home economics teachers, postsecondary	Occupational therapists
Curators	Industrial-organizational psychologists	Orthotists and prosthetists
Economists	Instructional coordinators	Physician assistants
Education administrators, elementary and secondary school	Librarians	Political scientists
Education administrators, postsecondary	Marriage and family therapists	Rehabilitation counselors
Educational, guidance, school, and vocational counselors	Mathematicians	Sociologists
Epidemiologists	Mental health counselors	Speech-language pathologists
Farm and home management advisors	Nurse anesthetists	Statisticians
Genetic counselors	Nurse midwives	Urban and regional planners

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