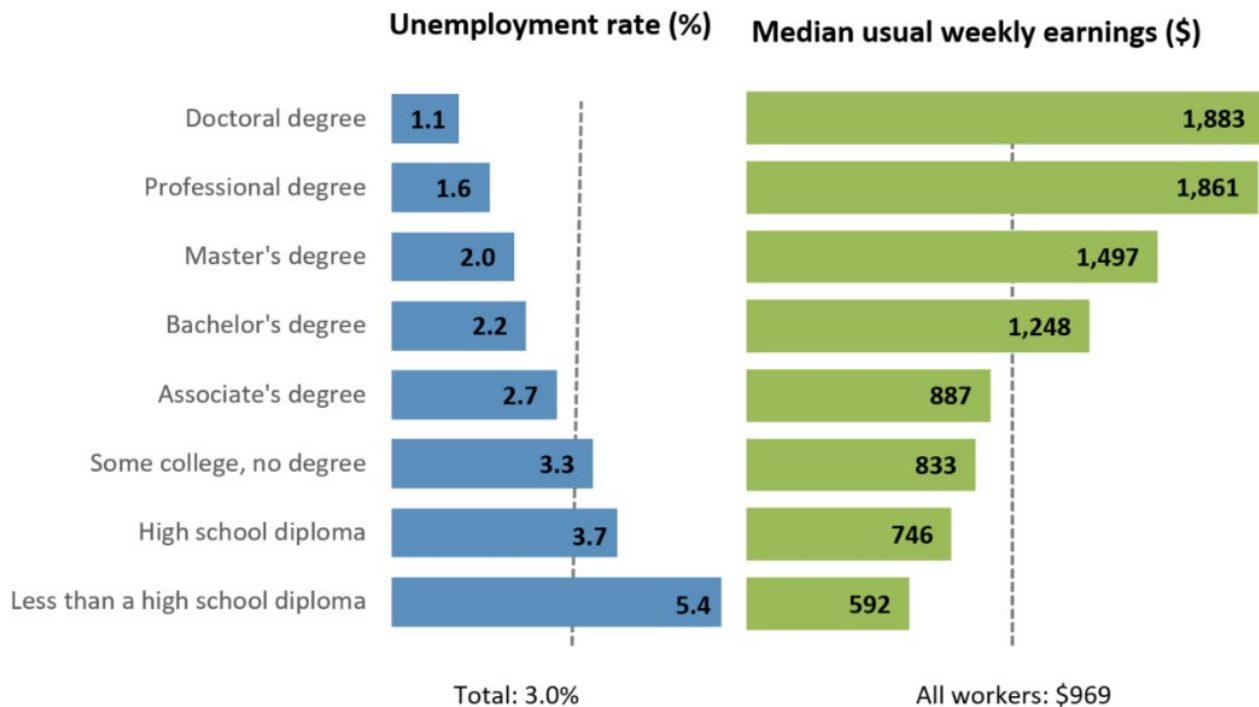


Unemployment rates and earnings by educational attainment, 2019



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
 Source: U.S. Bureau of Labor Statistics, Current Population Survey.

Unemployment rate for PhDs: 1.1%

Unemployment for Drs./Lawyers/Dentists/Vets: 1.6%

Median pay for a PhD: \$97,916

Average pay for a Master's: \$77,844

Median pay for a full professor: \$160,080 (R1, 9-month contract)

Median pay for a professor: \$100,800 (all types, 9 month):

Source: AAUP, https://www.aaup.org/sites/default/files/2019-20_survey_tables_2.pdf

Professor Summer Pay: add \$5000 to \$10,000+

NSF Survey of Earned Doctorates:

Median *First* Salary:

Academe: ≈\$63,000

Nonprofit: ≈\$80,000

Government: ≈\$83,000

Industry: ≈\$105,000

Table 49 at <https://nces.nsf.gov/pubs/nsf20301/data-tables/#group6>

BEST SOURCES TO LEARN ABOUT GRADUATE PROGRAMS

Professors

This is your best source. Professors know you, they know which programs favor students from your school, they know the relative quality of graduate programs in their fields, and they may even have personal friends at graduate programs where you might like to apply.

Other Students and Alumni

Students and alumni have similar information. Alumni currently at graduate programs will give you the most honest information about the quality of the program and the faculty.

www.petersons.com and [GradTrek.com](http://www.gradtrek.com)

Peterson's and GradTrek are search engine driven programs to find the right grad program. GradTrek is quick and easy, but Peterson's has every accredited program in the United States.

Specialty Guides

Find specialty guides for your field, for example, *APA Graduate Study in Psychology*, or *Graduate Programs in Neurosciences*, or *AIP Graduate Programs in Physics, Astronomy, and Related Fields*, by asking professors for reference to them, or by checking your profession's association's web site.

Academic Journals in Your Field

Top students should get grad school ideas directly from the academic journals. The best programs generate the best and the most articles, so look in the journals for writing and/or research that interest you. Then find out where the article writer teaches.

National Research Council data on Doctoral Programs

Not recommended, as the data are too old (2011 release of 2005 data). Note related data product, *A Data-Based Assessment of Research-Doctorate Programs in the United States*.

Faculty Scholarly Productivity Index (FSPI)

No longer in use.

Educational Rankings Annual

Last edition in 2006, but this guide does have obscure and spurious listings, and the listings themselves may have been updated.

The University of Illinois Library – Grad School Rankings Page

<http://www.library.illinois.edu/edx/rankings/rankgrad.html>

The Business Magazine Rankings

Business magazines are in the business of selling business magazines. Their editors usually know less about higher education than they know about automobiles, which is not a lot. These "rankings" are not precise, but you can get ideas to investigate further. *US News & World Report* is the most widely cited ranking system, but is known to have a flawed methodology.

Online Searches

Online data are voluminous but shallow, and can be downright misleading (for example, some portals list schools in order of having paid a subscription fee). Always go online to investigate schools you're already interested in. Also, watch carefully for information on related labs and institutes, which might interest you more than the main department.

Grad Fairs

One of the only places to meet a lot of graduate professionals quickly, but don't fall in love on the first date! Check out other schools.

Adapted from *Graduate Admissions Essays* by Donald Asher (Ten Speed Press)

Writing Exercises

for the Graduate Admissions Essay, Statement of Purpose, or Letter of Intent

Answer each question with a narrative essay of any length, from a paragraph to several pages, whatever feels right.

1. How did you first get interested in this field of study? Can you remember the very first time you had this interest?
2. What has influenced this interest over time? What professors, classes, labs, papers, research projects, books or ideas have influenced you? What out-of-class experiences have influenced you?
3. If your interest has changed over time, how has your prior interest contributed to your understanding of/approach to your current interest?
4. Make a list of all your undergraduate papers, labs, and research projects. If you cannot remember their exact names, approximate or paraphrase.
5. Do you have any publications or presentations at academic conferences? Are there publications you can submit or any academic conferences you can attend (in any capacity) between now and when you would begin your graduate studies?
6. What will you do between now and when you will arrive at your graduate institution? Which classes will you take? What skills will you acquire? What internship, work or community service experiences will you complete?
7. How have you researched your graduate school options to date? Have you visited schools, researched them on Web sites, written to professors, attended conferences?
8. Can you remember encouraging words you have received from professors, employers, coaches, or peers? If others have encouraged you to pursue your goals, can you remember, as exactly as you can, what they said to you? If so, make a list of quotes.
9. What is your GPA in the following categories: overall, year by year, over the last four completed semesters, in your major, since you declared your current major, in math and sciences, not counting math and sciences, not counting semesters abroad, etc.? Look at your transcripts and see if there are other ways of analyzing your GPA that might be of interest to admissions readers.
10. How have you prepared yourself for success in graduate school? What body of relevant knowledge will you take with you? What study or laboratory skills will help you succeed? What personal attributes will help you?
11. Have you overcome adversity to get where you are? (Be brief.)
12. What makes you unique or unusual? List several things.
13. What are your leisure activities? What do you do when you are not being a student? What do you do to relieve stress?
14. How might you contribute to the academic community you intend to join? How will that community be benefited by association with you?
15. Can you name specific professors of interest at your top three graduate programs? If so, list them along with their research/academic specialties.
16. What will you do with this degree? Will you teach, do research, work in industry or government? All of the above? (If you don't know, don't invent.)

This handout courtesy of Donald Asher, adapted from *Graduate Admissions Essays* (Ten Speed Press), the best-selling guide to the graduate admissions process. See *Graduate Admissions Essays* for sample essays in all fields.

Letters of Recommendation

This is a relationship, not a transaction. I prefer a month's notice, and two weeks is a minimum. I have made exceptions in extraordinary cases (late decision or late discovery of a very attractive option).

I need a portfolio from you with the following contents:

1. A preliminary list of the graduate programs you are considering, and how you differentiate them. Most faculty recommend you apply to two safe schools, two reach schools, and two schools from the middle of the spectrum, more for law and medicine. If you are going to go to the trouble to apply to graduate school, please have a strategy to succeed at the process.
2. A printout of your transcripts.
3. Copies of two or three graded work projects, theses/papers/ labs/write ups that represent the quality of your work.
4. A rough draft or outline of your personal statement or statement of purpose. If you want help with this, see Donald Asher's *Graduate Admissions Essays* (the best-selling guide to the graduate admissions process).
5. A C.V. or resume for me, including student activities, volunteer, and service experiences, etc. If you have a different C.V. or resume crafted for submission to graduate schools, I'd like to see that version also.
6. A brief list of what *you* think would be most important for a graduate program to know about you.
7. Clear instructions for submitting the letter. Web links and codes that work, or if there is a paper process, all forms or envelopes filled out in advance, and stamps (correct postage) for anything that I have to mail. The less secretarial work I have to do, the more effort I can put into your letter itself.
8. *A very clear indication of when you need the letters submitted.* Otherwise, I will assume that anything ahead of the deadline is satisfactory.

After I submit your recommendations, I need two more things:

1. You need to share with me any communiqués from the graduate programs about secondary inquiries, admission offers, wait list notices, funding/support/fellowship/assistantship offers, telephone contacts, meet-and-greet events, and so on. This helps me be a better advisor.
2. I need to know where you decide to go!

Funding Graduate Study

A Primer

This is a free, open-source resource by Donald Asher, author of the best-selling guide to getting into graduate school, *Graduate Admissions Essays*, 4th ed. You are welcome to share this with all your friends, students, faculty, staff, etc., and you may post this anywhere in any format in any medium. Alert me to new cool resources, and email me and I will send you an article on how to fund your graduate studies: don@donaldasher.com

Use my book, *The Best Scholarships for the Best Students*, by Donald Asher, Jason Morris, and Nichole Fazio-Veigel (which includes elite internships and lab opportunities in addition to funding, all the way to postdoc)

Avoid using the term “financial aid,” but instead inquire about “funding and support.” Many (but not all) programs have teaching, research, and graduate assistantships, so you can ask them some version of this: “When and how do you choose your TAs, RAs, and GAs, and can you help me understand *all* the forms of funding and support available to students in your program?” They may say, “It’s all on our web site,” *so you’d better have looked carefully on the web site first*

Undocumented? See these resources: https://immigrantsrising.org/resources?_sft_topics=higher-education&_sft_geography=national; and check out resources at www.scholarshipsaz.org

Also, check out these books & web sites:

Cornell’s database: <http://gradschool.cornell.edu/fellowships>

UCLA’s *Graduate & Postdoctoral Extramural Support (GRAPES) Database*, available at www.grad.ucla.edu/grpinst.htm (fantastic open resource; yay, UCLA!)

University of California-Santa Cruz (UCSC): *Fellowships & Funding Guide for Graduate Students*, available at <http://careers.ucsc.edu/grad/fellowships.html>

McNair and other funding: <https://mcnairscholars.com/funding/>

Funding the Humanities PhD: The Grad Student's Guide to Grants & Fellowships [Kindle Edition], by J. Martin, PhD, available from amazon.com for \$3.99 (this is an excellent guide in an area that doesn’t get enough attention, i.e., funding for humanities; highly recommended)

Foundation Grants to Individuals, by Foundation Center (at your library), now a web site

Annual Register of Grant Support, by Beverley McDonough and Daniel Bazikian (at your library)

Cost of Living Calculator, compare A v. B: <https://money.cnn.com/calculator/pf/cost-of-living/index.html>

<https://lendedu.com/blog/financial-aid-for-minorities/>

Finaid.org

Fastweb.com

FAFSA: www.fafsa.com

Grants.gov (\$500 billion in funding)

NIH: grants.nih.gov/grants/oer.htm

NSF: nsf.gov/funding

NASA: intern.nasa.gov/solar/web/public/main (SOLAR is Student On-Line Application for Recruiting)

COS: pivot.cos.com (Community of Science)

(these are just the most important; for hundreds of specialized sites, for underrepresented students, for international students, STEM only, etc., see *The Best Scholarships for the Best Students*)

And my favorite book on academic culture: *The PhDictionary: A Glossary of Things You Don’t Know (but Should) About Doctoral and Faculty Life* (University of Chicago Press)

How to Pay for Your Graduate Education

By Donald Asher, author of *Graduate Admissions Essays*, the best-selling guide to the graduate application process.

You'd love to go to graduate school, if only you could find a way to pay for it, right? Well, maybe you're thinking about it backwards. Maybe you have to decide to go first, and then you'll find the money.

For many types of grad schools, you'll have to apply to the program, simultaneously apply for several internal and external sources of funding, and wait for months to see how it's going to work for you. So, step one is clearly to decide to go. Looking for money is just a part of the process.

Next, stop looking for "financial aid." That's an undergraduate term. You want to look for "funding" and "support." In graduate school most people who are called "financial aid officers" are in fact *loan* officers. They're great people, and you're probably going to need them, but they have no idea about all the sources for funding and support. That's what this article is about.

Let's start with **merit scholarships**. If you're brilliant, with the fantastic grades and scores to prove it, many graduate programs, including law and business, will give you a merit scholarship or a full waiver of tuition. Here's the secret: Tier 2 schools poach talent from Tier 1 schools by offering a free ride. So, you get into Top Ten School of Law and the Pretty Good School of Law, but Top Ten wants you to pay full fare while Pretty Good gives you a free ride. All kinds of programs do this, but many don't talk about it.

Also, think about taking the plunge and going for the doctorate. Full-time doctoral students at many—but certainly not all—programs automatically get a full waiver of tuition. This is well known among academicians, but not well known by the general public.

Next, look for assistantships. Assistantships are a weird animal. According to the IRS, they are jobs. According to most faculty, they are apprenticeship programs. According to some students, they are a form of modern indentured servitude. They are also an honor and a form of financial aid. The good news is that assistantships almost always include *a full or partial waiver of tuition plus a stipend*. Stipends vary from as little as \$10,000 a year to more than \$40,000 per year, but the real value of an assistantship is the waiver of tuition. For ten to twenty hours a week of service to your department, you can go to graduate school for free.

Obviously, if you are not paying tuition, public and private schools cost the same, and in-state and out-of-state tuition is also exactly the same. Because of this, it is frequently cheaper to go to an expensive school! They often have more money to give to students they want to recruit.

There are three types of assistantship. Most undergraduates know about **teaching assistantships**. To get a teaching assistantship, you have to have outstanding grades in the subject, maybe a strong GRE score, and maybe prior teaching or tutoring experience. Departments have stringent rules about who gets selected to be a teaching assistant.

Research assistantships are much easier to get than teaching assistantships. You don't have to have great grades and scores; you just have to have the same passion as a faculty member who needs an assistant. Prior research experience is more important than your grades or scores. All you have to do is convince one faculty member, not a whole department, that you'd be useful to have around. Start by saying, "Dr. Lee, I've read every article you've ever written. I think you're a genius...." Well, maybe not literally, but you get the idea. There are research assistantships all over any campus, including in areas where students might not think to look, for example, in English and education departments.

Graduate assistantships are the easiest to get, in terms of what credentials you need to possess. GA assignments are really just jobs, with less of an academic component. Jobs in administration, clerical, IT support, admissions and records, and program coordinator-type roles are run as graduate assistantships. Department and program heads dole these out.

Here's a secret assistantship often overlooked: If you are a native speaker of a foreign language, you can sometimes get a teaching assistantship in a foreign language department, leading a conversation group or even a whole class, while you are studying somewhere else, say engineering or business. If you speak a truly needed language, such as Arabic, you may find

this an easy way to pay for your graduate education. Sometimes there are opportunities to be an instructor in areas where there are shortages, for example, an acquaintance of mine paid for his doctoral studies by teaching statistics in several departments.

One of the few ways to go to business and law school for free is by being a graduate assistant. They take GAs in only a few select areas, typically career placement, admissions, and IT roles. Interest alone won't win these assignments; some kind of prior experience is usually required.

If you want to get assistantships it helps to be a doctoral student, but all these assistantships are available for you as a master's degree student at all universities that do not offer the doctoral degree in your field of choice. Assistantships are common for full-time students at brick-and-mortar institutions, and pretty rare at online and distributed-model institutions and for all part-time students.

If you want to go to school for free part-time, one of the better ways is through some type of **employer-sponsored educational benefits** program. Many universities themselves have outstanding educational benefits for full-time employees, so making a career move to working for a university may be your best way to get additional degrees and credentials part-time without taking out any loans. Of course, other types of employers subsidize the educations of their employees. Watch out for complicated rules! For example, some employers only reimburse you for completed courses, or for courses directly related to your ongoing assignments; some cover books and fees and others only tuition, and you may have to pay back every dime if you subsequently leave the company within a specified time of using these benefits.

Suppose you have to pay for your own education. Wouldn't it be nice to have a scholarship for 25 to 30% or more of your tuition? You can! If you'll study something that helps you advance in the career you already have, your tuition is tax deductible. So, the government in effect gives you a scholarship equal to your combined federal and state income tax rate. Be careful, though. If an auditor decides your investment in a part-time master's degree in poetry has no bearing on your career in corporate finance, it's not deductible at all. Consult a tax professional before trying to deduct educational expenses.

Many people pay for their graduate educations through loans. If you stand to earn significantly more money upon completing a degree or credential program, it makes sense to borrow money and pay it back later through increased income. In fact, education is one of the best investments you'll ever make, according to the Bureau of Labor Statistics. People who complete a master's degree will earn \$400,000 more than people who stop at the bachelor's degree. A Ph.D. is worth \$1.4 million more, and doctors and lawyers earn \$2.3 million more. Individual results will vary, but on average, borrowing money for tuition does make sense.

Raul Aldama, financial aid officer for Fielding Graduate University, says "Seventy-five to 80% of our students take out loans, depending on the academic program." His school uses a distributed learning format, and has students all over the world. Faculty and deans manage the fellowships, but true to his title, Mr. Aldama focuses only on student borrowing. "You're allowed \$20,500 per year through the federally funded Stafford Loan Program, and additional monies up to the total cost of attendance through the Graduate Plus Program." Even if you have a high income and tons of assets, you can qualify for these programs if you are a U.S. citizen and not in active default on a prior student loan. The terms will vary by your circumstances. You start by contacting the financial aid office of the program of your choice, and it's a good idea to consult with them *before you even apply*.

To learn about third-party scholarships, grants, and fellowships, check out this book, *The Best Scholarships for the Best Students*, and these sites:

www.finaid.org

www.fastweb.com

www.grants.gov

www.blackexcel.org

www.cos.com

www.hsf.net

There are some other good books and sites, but be sure never to pay for a scholarship search. If it's not free, you're in the wrong place.

I like these books better than the web sites, because you can browse your way to money:

The Best Scholarships for the Best Students

Foundation Grants to Individuals

Annual Register of Grant Support

Dan Cassidy's Worldwide Graduate Scholarship Directory

In these books you can learn about weird money specifically reserved for women over 5'9" tall, for people with a certain Italian last name, and for people with bad grades. There's a *lot* of weird money out there.

In the sciences it's expected that you will apply for three or four third-party funding sources and, frankly, that's a good practice for everybody. Just make it part of your application process.

My final piece of advice is to remember how to be poor. You'll need a lot less money for your graduate studies if you'll give up vacations in Europe, new cars, 500 channels of premium cable, and eating out all the time. If you want it bad enough, there are myriad ways to put together the money you need for graduate study.

NEW BIO:

Donald Asher is a public speaker and writer specializing in careers and higher education. He is the author of 12 books, including *Graduate Admissions Essays*, the best-selling guide to the graduate admissions process; *Cool Colleges for the Hyper-Intelligent, Self-Directed, Late Blooming, and Just Plain Different*; *How to Get Any Job with Any Major*; and *Who Gets Promoted, Who Doesn't, and Why*.

How to Shave a Year off a PhD

(by Donald Asher, author of *Graduate Admissions Essays*, used with permission)

1. Follow your **Program of Study**. Your Program of Study is the sequence of classes, milestones, and events that leads to completion. You create your Program of Study with your advisor. In graduate school, the milestones and events are more important than the classes. E.g., if you miss a deadline to file a form, it can cost you a whole year. Update your Program of Study often, and post it over your desk. Look at it every day.
2. Come in the door with at least a vague dissertation idea, *but do not rigidly hang on to it*. Grad school is a transformative process, so your initial idea is a jump start, not a printed road map. Write all your papers for every class, as many as you can, on some aspect related to your dissertation interest.
3. Pick a mentor with a high completion rate. This is a professional relationship. It is irrelevant whether you are “buddies” with this person. Then, let your mentor suggest other people to serve on your committee. Start shopping, casually, for committee members right from the first day of grad school. Watch out for young professors out to make a name for themselves; they can be hardasses. Watch out for old pros that might not survive your dissertation. Keep an eye out for your external reviewer; they are hard to find and hard to recruit, and be sure to check to see whether they dislike your mentor, school, topic, methodology, epistemology, or politics. In fact, check all members of your committee for reservations like this.
4. An appropriate dissertation topic is very narrow. Think up a very narrow question that can be definitely answered with your methodology, within your budget, in your lifetime. Most research has these three components: population, problem, theory (or topic, problem, theory). Remember, a dissertation is a training process. This is not supposed to be the most important work you will ever do. What’s better: A perfect dissertation or a done dissertation? Duh. Do smart, good work, but most of all, get it done. *It’s nice if there are clever implications to your research, but the research itself can be simple and elegant.*
5. Write a paper that is a dry run of your dissertation idea in the first two years. Ask a professor for (a) permission to do this, and (b) feedback on your idea, research question, methodology, etc. Some programs require this, and may call it a “concept paper.”
6. Students who finish master’s theses have higher completion rates for completing dissertations. If your program offers a thesis as a master’s option, take it. It may slow you down for a bit at the time, but when you get to the dissertation you’ll go faster. A master’s thesis like this should be a one-semester project. One question, one method, one answer. Don’t go overboard; don’t make this project bigger than it needs to be.
7. Do your own research before you get to the proposal stage. This sounds obvious, but a lot of students don’t do this. They work on other people’s projects, and don’t get their feet wet as the director of a project. Design, conduct, report, including IRB if needed (see next).
8. Go through the IRB (Institutional Review Board for protection of human subjects) process before you get to your dissertation project. Same reasons. IRB is like learning a new language, and you want to get

through unscathed and with minimum delays. (A smart student *expects* IRB delays, by the way.) There are similar research review processes for people who work with animals or dangerous materials.

9. Take an independent study and use it to do the entire literature review for your proposal *before* you submit your proposal. (Some proposals require lit review and methodology chapters anyway, but you'll have the whole lit review done rather than a prelim version.) You'll probably have to rewrite your proposal (this is normal; don't get mad, just comply), but if you're prudent you'll be able to salvage almost all of your lit review even if you have to refine your question or methods.

10. Write your proposal before you take your comps. Most places you cannot submit the proposal before passing comps, but this allows you to drop the proposal the day you receive notice of passing comprehensive exams. This, alone, saves as much as six months.

11. Stay on campus! If you stay on campus through your research and writing stages, you have a much higher chance of finishing in a timely manner, and you'll have access to your committee, campus resources, etc. It may be tempting to go get "a real job" and do your dissertation while you work, but that's a much higher risk factor for completing. You *don't* want to live a long life as an ABD.

12. Keep your eyes on the prize! Have a life plan that requires the PhD. to be behind you. If you lust for that future, you will finish the PhD. If grad school is more attractive to you than that vision, or if you don't have that vision, you're at greater risk of not finishing.

These tips could shave a year, or more, off your process.