

Teachers—Postsecondary

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Significant Points

- Opportunities for college and university teaching jobs are expected to improve, but many new openings will be for part-time or non-tenure-track positions.
- Prospects for teaching jobs will continue to be better in academic fields that offer attractive alternative nonacademic job opportunities—health specialties, business, and computer science, for example—which attract fewer applicants for academic positions.
- Educational qualifications for postsecondary teacher jobs range from expertise in a particular field to a Ph.D, depending on the subject being taught and the type of educational institution.
- One out of eight postsecondary teachers is a graduate teaching assistant—and one out of ten is a vocational or career and technical education teacher.

Nature of the Work

Postsecondary teachers instruct students in a wide variety of academic and vocational subjects beyond the high school level that may lead to a degree or simply to improvement in one's knowledge or skills. These teachers include college and university faculty, postsecondary career and technical education teachers, and graduate teaching assistants.

College and university faculty make up the majority of postsecondary teachers. They teach and advise more than 15 million full- and part-time college students and perform a significant part of our Nation's research. Faculty also keep up with new developments in their field and may consult with government, business, nonprofit, and community organizations.

Faculty usually are organized into departments or divisions, based on academic subject or field. They usually teach several different related courses in their subject—algebra, calculus, and statistics, for example. They may instruct undergraduate or graduate students, or both. College and university faculty may give lectures to several hundred students in large halls, lead small seminars, or supervise students in laboratories. They prepare lectures, exercises, and laboratory experiments; grade exams and papers; and advise and work with students individually. In universities, they also supervise graduate students' teaching and research. College faculty work with an increasingly varied student population made up of growing shares of part-time, older, and culturally and racially diverse students.

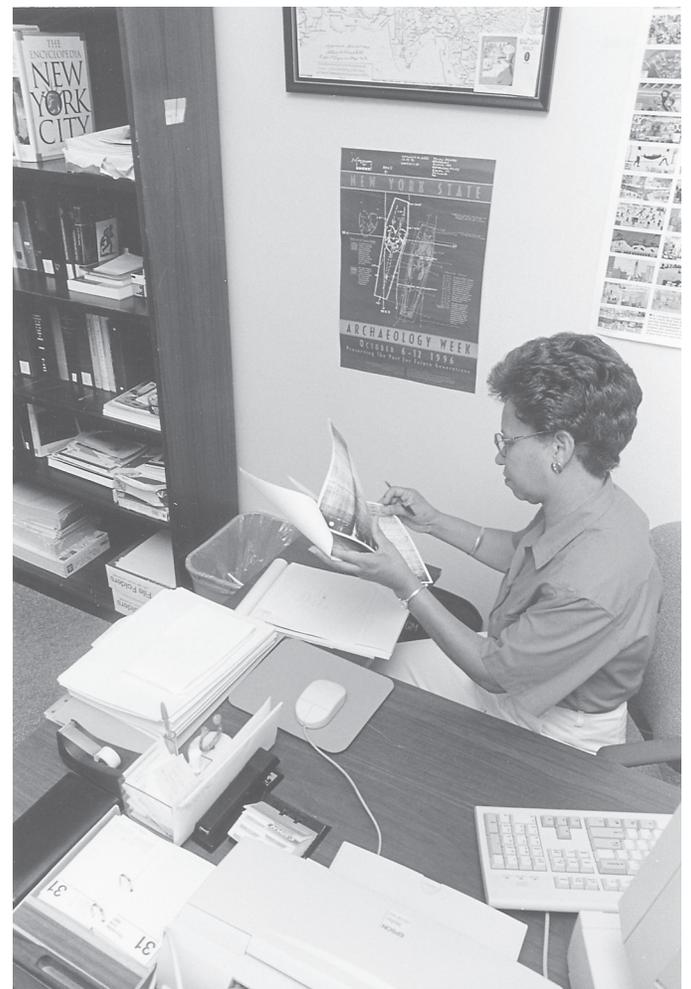
Faculty keep abreast of developments in their field by reading current literature, talking with colleagues, and participating in professional conferences. They may also do their own research to expand knowledge in their field. They may perform experiments; collect and analyze data; and examine original documents, literature, and other source material. From this pro-

cess, they arrive at conclusions, and publish their findings in scholarly journals, books, and electronic media.

Most college and university faculty extensively use computer technology, including the Internet; electronic mail; software programs, such as statistical packages; and CD-ROMs. They may use computers in the classroom as teaching aids and may post course content, class notes, class schedules, and other information on the Internet. Some faculty are increasingly using sophisticated telecommunications and videoconferencing equipment and the Internet to teach courses to students at remote sites. The use of e-mail, chat rooms, and other techniques has greatly improved communications between students and teachers and among students.

Most faculty members serve on academic or administrative committees that deal with the policies of their institution, departmental matters, academic issues, curricula, budgets, equipment purchases, and hiring. Some work with student and community organizations. Department chairpersons are faculty members who usually teach some courses but have heavier administrative responsibilities.

The proportion of time spent on research, teaching, administrative, and other duties varies by individual circumstance and type of institution. Faculty members at universities normally spend a significant part of their time doing research; those in 4-year colleges, somewhat less; and those in 2-year colleges, rela-



Postsecondary teachers review current research to keep abreast of developments in their field.

tively little. The teaching load, however, often is heavier in 2-year colleges and somewhat lighter at 4-year institutions. Full professors at all types of institutions usually spend a larger portion of their time conducting research than do assistant professors, instructors, and lecturers.

Postsecondary vocational education teachers, also known as *postsecondary career and technical education teachers*, provide instruction for occupations that require specialized training, but may not require a 4-year degree, such as welder, dental hygienist, x-ray technician, auto mechanic, and cosmetologist. Classes often are taught in an industrial or laboratory setting where students are provided hands-on experience. For example, welding instructors show students various welding techniques and essential safety practices, watch them use tools and equipment, and have them repeat procedures until they meet the specific standards required by the trade. Increasingly, career and technical education teachers are integrating academic and vocational curriculums so that students obtain a variety of skills that can be applied to the “real world.”

Career and technical education teachers have many of the same responsibilities that other college and university faculty have. They must prepare lessons, grade papers, attend faculty meetings, and keep abreast of developments in their field. Career and technical education teachers at community colleges and career and technical schools also often play a key role in students’ transition from school to work by helping to establish internship programs for students and by providing information about prospective employers.

Graduate teaching assistants, often referred to as *graduate TAs*, assist faculty, department chairs, or other professional staff at colleges and universities by performing teaching or teaching-related duties. In addition to their work responsibilities, assistants have their own school commitments, as they are also students who are working towards earning a graduate degree, such as a Ph.D. Some teaching assistants have full responsibility for teaching a course—usually one that is introductory in nature—which can include preparation of lectures and exams, and assigning final grades to students. Others provide assistance to faculty members, which may consist of a variety of tasks such as grading papers, monitoring exams, holding office hours or help-sessions for students, conducting laboratory sessions, or administering quizzes to the class. Teaching assistants generally meet initially with the faculty member whom they are going to assist in order to determine exactly what is expected of them, as each faculty member may have his or her own needs. For example, some faculty members prefer assistants to sit in on classes, while others assign them other tasks to do during class time. Graduate teaching assistants may work one-on-one with a faculty member or, for large classes, they may be one of several assistants.

Working Conditions

Postsecondary teachers usually have flexible schedules. They must be present for classes, usually 12 to 16 hours per week, and for faculty and committee meetings. Most establish regular office hours for student consultations, usually 3 to 6 hours per week. Otherwise, teachers are free to decide when and where they will work, and how much time to devote to course preparation, grading, study, research, graduate student supervision, and other activities.

Some teach night and weekend classes. This is particularly true for teachers at 2-year community colleges or institutions with large enrollments of older students who have full-time jobs

or family responsibilities. Most colleges and universities require teachers to work 9 months of the year, which allows them the time to teach additional courses, do research, travel, or pursue nonacademic interests during the summer and school holidays. Colleges and universities usually have funds to support research or other professional development needs, including travel to conferences and research sites.

About 3 out of 10 college and university faculty worked part time in 2002. Some part-timers, known as “adjunct faculty,” have primary jobs outside of academia—in government, private industry, or nonprofit research—and teach “on the side.” Others prefer to work part-time hours or seek full-time jobs but are unable to obtain them due to intense competition for available openings. Some work part time in more than one institution. Many adjunct faculty are not qualified for tenure-track positions because they lack a doctoral degree.

University faculty may experience a conflict between their responsibilities to teach students and the pressure to do research and publish their findings. This may be a particular problem for young faculty seeking advancement in 4-year research universities. Also, recent cutbacks and the hiring of more part-time faculty have put a greater administrative burden on full-time faculty. Requirements to teach online classes also have added greatly to the workloads of postsecondary teachers. Many find that developing the courses to put online, plus learning how to operate the technology and answering large amounts of e-mail, is very time-consuming.

Like college and university faculty, there is usually a great deal of flexibility in graduate TAs’ work schedules, which allows them the time to pursue their own academic coursework and studies. The number of hours that TAs work varies depending on their assignments. Work may be stressful, particularly when assistants are given full responsibility for teaching a class; however, these types of positions allow graduate students the opportunity to gain valuable teaching experience. This experience is especially helpful for those graduate teaching assistants who seek to become faculty members at colleges and universities after completing their degree.

Employment

Postsecondary teachers held nearly 1.6 million jobs in 2002. Most were employed in public and private 4-year colleges and universities and in 2-year community colleges. Postsecondary career and technical education teachers also are employed by schools and institutes that specialize in training people in a specific field, such as technology centers or culinary schools. Some career and technical education teachers work for State and local governments and job training facilities. The following tabulation shows postsecondary teaching jobs in specialties having 20,000 or more jobs in 2002:

Graduate teaching assistants	128,000
Vocational education teachers	119,000
Health specialties teachers	86,000
Business teachers	67,000
Art, drama, and music teachers	58,000
English language and literature teachers	55,000
Education teachers	42,000
Biological science teachers	47,000
Mathematical science teachers	41,000
Nursing instructors and teachers	37,000
Computer science teachers	33,000
Engineering teachers	29,000
Psychology teachers	26,000

Training, Other Qualifications, and Advancement

The education and training required of postsecondary teachers varies widely, depending on the subject taught and educational institution employing them. Educational requirements for teachers are generally the highest at 4-year research universities but, at career and technical institutes, experience and expertise in a related occupation is the most valuable qualification.

Postsecondary teachers should communicate and relate well with students, enjoy working with them, and be able to motivate them. They should have inquiring and analytical minds, and a strong desire to pursue and disseminate knowledge. Additionally, they must be self-motivated and able to work in an environment in which they receive little direct supervision.

Training requirements for postsecondary career and technical education teachers vary by State and by subject. In general, teachers need a bachelor's or higher degree, plus work or other experience in their field. In some fields, a license or certificate that demonstrates one's qualifications may be all that is required. Teachers update their skills through continuing education, in order to maintain certification. They must also maintain ongoing dialogue with businesses to determine the most current skills needed in the workplace.

Four-year colleges and universities usually consider doctoral degree holders for full-time, tenure-track positions, but may hire master's degree holders or doctoral candidates for certain disciplines, such as the arts, or for part-time and temporary jobs. Most college and university faculty are in four academic ranks—professor, associate professor, assistant professor, and instructor. These positions usually are considered to be tenure-track positions. Most faculty members are hired as instructors or assistant professors. A smaller number of additional faculty members, called lecturers, are usually employed on contracts for a single academic term and are not on the tenure track.

In 2-year colleges, master's degree holders fill most full-time positions. However, with increasing competition for available jobs, institutions can be more selective in their hiring practices. Many 2-year institutions increasingly prefer job applicants to have some teaching experience or experience with distance learning. Preference also may be given to those holding dual master's degrees, because they can teach more subjects. In addition, with greater competition for jobs, master's degree holders may find it increasingly difficult to obtain employment as they are passed over in favor of candidates holding a Ph.D.

Doctoral programs take an average of 6 to 8 years of full-time study beyond the bachelor's degree, including time spent completing a master's degree and a dissertation. Some programs, such as those in the humanities, take longer to complete; others, such as those in engineering, usually are shorter. Candidates specialize in a subfield of a discipline—for example, organic chemistry, counseling psychology, or European history—but also take courses covering the entire discipline. Programs include 20 or more increasingly specialized courses and seminars plus comprehensive examinations on all major areas of the field. Candidates also must complete a dissertation—a written report on original research in the candidate's major field of study. The dissertation sets forth an original hypothesis or proposes a model and tests it. Students in the natural sciences and engineering usually do laboratory work; in the humanities, they study original documents and other published material. The dissertation is done under the guidance of one or more faculty advisors and usually takes 1 or 2 years of full-time work.

In some fields, particularly the natural sciences, some students spend an additional 2 years on postdoctoral research and study before taking a faculty position. Some Ph.D.s extend postdoctoral appointments, or take new ones, if they are unable to find a faculty job. Most of these appointments offer a nominal salary.

Obtaining a position as a graduate teaching assistant is a good way to gain college teaching experience. To qualify, candidates must be enrolled in a graduate school program. In addition, some colleges and universities require teaching assistants to attend classes or take some training prior to being given responsibility for a course.

Although graduate teaching assistants usually work at the institution and in the department where they are earning their degree, teaching or internship positions for graduate students at institutions that do not grant a graduate degree have become more common in recent years. For example, a program called Preparing Future Faculty, administered by the Association of American Colleges and Universities and the Council of Graduate Schools, has led to the creation of many now-independent programs that offer graduate students at research universities the opportunity to work as teaching assistants at other types of institutions, such as liberal arts or community colleges. Working with a mentor, the graduate students teach classes and learn how to improve their teaching techniques. They may attend faculty and committee meetings, develop a curriculum, and learn how to balance the teaching, research, and administrative roles that faculty play. These programs provide valuable learning opportunities for graduate students interested in teaching at the postsecondary level, and also help to make these students aware of the differences among the various types of institutions at which they may someday work.

For faculty, a major step in the traditional academic career is attaining tenure. New tenure-track faculty usually are hired as instructors or assistant professors, and must serve a period—usually 7 years—under term contracts. At the end of the period, their record of teaching, research, and overall contribution to the institution is reviewed; tenure is granted if the review is favorable. Those denied tenure usually must leave the institution. Tenured professors cannot be fired without just cause and due process. Tenure protects the faculty's academic freedom—the ability to teach and conduct research without fear of being fired for advocating unpopular ideas. It also gives both faculty and institutions the stability needed for effective research and teaching, and provides financial security for faculty. Some institutions have adopted post-tenure review policies to encourage ongoing evaluation of tenured faculty.

The number of tenure-track positions is expected to decline as institutions seek flexibility in dealing with financial matters and changing student interests. Institutions will rely more heavily on limited term contracts and part-time, or adjunct, faculty, thus shrinking the total pool of tenured faculty. In a trend that is expected to continue, some institutions now offer limited-term contracts to prospective faculty—typically 2-, 3-, or 5-year, full-time contracts. These contracts may be terminated or extended when they expire. Institutions are not obligated to grant tenure to the contract holders. In addition, some institutions have limited the percentage of faculty who can be tenured.

For most postsecondary teachers, advancement involves a move into administrative and managerial positions, such as departmental chairperson, dean, and president. At 4-year institutions, such advancement requires a doctoral degree. At 2-year colleges, a doctorate is helpful but not usually required, except for advancement to some top administrative positions. (Deans and departmental chairpersons are covered in the *Handbook* statement on education administrators, while college presidents are included in the *Handbook* statement on top executives.)

Job Outlook

Overall, employment of postsecondary teachers is expected to grow much faster than the average for all occupations through 2012. A significant proportion of these new jobs will be part-time positions. Good job opportunities are expected as retirements of current postsecondary teachers and continued increases in student enrollments create numerous openings for teachers at all types of postsecondary institutions.

Projected growth in college and university enrollment over the next decade stems largely from the expected increase in the population of 18- to 24-year-olds. Adults returning to college and an increase in foreign-born students also will add to the number of students, particularly in the fastest growing States of California, Texas, Florida, New York, and Arizona. In addition, workers' growing need to regularly update their skills will continue to create new opportunities for postsecondary teachers, particularly at community colleges and for-profit institutions that cater to working adults. However, many postsecondary educational institutions receive a significant portion of their funding from State and local governments, and, over the early years of the projection period, tight State and local budgets will limit the ability of many schools to expand. Nevertheless, a significant number of openings also is expected to arise due to the need to replace the large numbers of postsecondary teachers who are likely to retire over the next decade. Many postsecondary teachers were hired in the late 1960s and 1970s to teach the baby boomers, and they are expected to retire in growing numbers in the years ahead.

Postsecondary institutions are a major employer of workers holding doctoral degrees, and opportunities for Ph.D. recipients seeking jobs as postsecondary teachers are expected to be somewhat better than in previous decades. The number of earned doctorate degrees is projected to rise by only 4 percent over the 2002-12 period, sharply lower than the 10-percent increase over the previous decade. In spite of this positive trend, competition will remain tight for those seeking tenure-track positions at 4-year colleges and universities, as many of the job openings are expected to be either part-time or renewable, term appointments.

Opportunities for graduate teaching assistants are expected to be very good. Graduate enrollments over the 2002-12 period are projected to increase at a rate that is somewhat slower than that of the previous decade, while total undergraduate enrollments in degree-granting institutions are expected to increase at nearly twice the rate of the preceding decade, creating many teaching opportunities. Constituting more than 12 percent of all postsecondary teachers, graduate teaching assistants play an integral role in the postsecondary education system, and they are expected to continue to do so in the future.

Because one of the main reasons why students attend postsecondary institutions is to obtain a job, the best job prospects for postsecondary teachers are likely to be in fields where

job growth is expected to be strong over the next decade. These will include fields such as business, health specialties, nursing, and computer and biological sciences. Community colleges and other institutions offering career and technical education have been among the most rapidly growing, and these institutions are expected to offer some of the best opportunities for postsecondary teachers.

Earnings

Median annual earnings of all postsecondary teachers in 2002 were \$49,040. The middle 50 percent earned between \$34,310 and \$69,580. The lowest 10 percent earned less than \$23,080, and the highest 10 percent earned more than \$92,430.

Earnings for college faculty vary according to rank and type of institution, geographic area, and field. According to a 2002-03 survey by the American Association of University Professors, salaries for full-time faculty averaged \$64,455. By rank, the average was \$86,437 for professors, \$61,732 for associate professors, \$51,545 for assistant professors, \$37,737 for instructors, and \$43,914 for lecturers. Faculty in 4-year institutions earn higher salaries, on average, than do those in 2-year schools. In 2002-03, average faculty salaries in public institutions—\$63,974—were lower than those in private independent institutions—\$74,359—but higher than those in religiously affiliated private colleges and universities—\$57,564. In fields with high-paying nonacademic alternatives—medicine, law, engineering, and business, among others—earnings exceed these averages. In others—such as the humanities and education—they are lower.

Many faculty members have significant earnings, in addition to their base salary, from consulting, teaching additional courses, research, writing for publication, or other employment. In addition, many college and university faculty enjoy some unique benefits, including access to campus facilities, tuition waivers for dependents, housing and travel allowances, and paid sabbatical leaves. Part-time faculty usually have fewer benefits than do full-time faculty.

Earnings for postsecondary career and technical education teachers vary widely by subject, academic credentials, experience, and region of the country. Part-time instructors usually receive few benefits.

Related Occupations

Postsecondary teaching requires the ability to communicate ideas well, motivate students, and be creative. Workers in other occupations that require these skills are teachers—preschool, kindergarten, elementary, middle, and secondary; education administrators; librarians; counselors; writers and editors; public relations specialists; and management analysts. Faculty research activities often are similar to those of scientists, as well as to those of managers and administrators in industry, government, and nonprofit research organizations.

Sources of Additional Information

Professional societies related to a field of study often provide information on academic and nonacademic employment opportunities. Names and addresses of many of these societies appear in statements elsewhere in the *Handbook*.

Special publications on higher education, such as *The Chronicle of Higher Education*, list specific employment opportunities for faculty. These publications are available in libraries.

For information on the Preparing Future Faculty program, contact:

► Association of American Colleges and Universities, 1818 R St. NW., Washington, DC 20009. Internet: <http://www.aacu-edu.org>

For information on postsecondary career and technical education teaching positions, contact State departments of career and technical education.

General information on adult and career and technical education is available from:

► Association for Career and Technical Education, 1410 King St., Alexandria, VA 22314. Internet: <http://www.acteonline.org>