Associate degrees continue to open doors for millions of Americans in search of careers or advanced academic study. Here are some of the options.

Associate degree:

Two years to a career or a jump start to a bachelor's degree

by Olivia Crosby

In 2 years, you can train for some of the fastest growing jobs in the economy, increase your earnings, and pave the way for further education.

How? Earn an associate degree. An associate degree is a college degree awarded after the completion of about 20 classes. It either prepares students for a career following graduation or allows them to transfer into a bachelor's degree program.

Compared with workers whose highest level of educational attainment was a high school diploma, workers with an associate degree averaged an extra $128 a week in 2001, according to the Bureau of Labor Statistics (BLS).

People with associate degrees also are more likely to find jobs: the unemployment rate in 2001 was more than 30 percent lower for associate degree holders compared with high school graduates. And, according to several academic studies, advantages in the job market might be even greater for those just starting their careers and for those who work in a career related to their degree.

But for most people, the best part about earning an associate degree is the opportunity to enter interesting professions. Training is available for those with nearly any interest, from technical fields like electronics and health care to liberal arts areas, such as design and social work. And according to BLS, occupations in which workers often are required to have an associate degree are growing faster than occupations that require other types of training.

The hallmark of associate degrees is flexibility, both in what to study and how to study it. Degrees are available from public community colleges, private 2-year colleges, for-profit technical institutes, and many 4-year colleges and universities. Taking classes from home is more common in associate degree programs than in any other type of educational credentials program, with more than 9 percent of associate degree students using distance learning in 1998, according to the U.S. Department of Education. Other students have a more traditional college experience, living at one of the one-fifth of schools that offer on-campus housing and meals. And nearly all schools offer extracurricular activities—such as sports,

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clubs, and volunteer groups—as well as academics. Nonprofit schools, such as private and community colleges, are most likely to offer these extras.

Keep reading to learn what types of associate degrees are available, which occupations they prepare students for, what to consider when choosing a career, how to select and prepare for a college program, and where to find more information about associate degree programs and careers.

Types of degrees

All associate degree programs require that students successfully complete about 60 college credits. That translates into roughly 20 courses. Associate degrees are of two types: Occupationally focused degrees, which prepare students to work immediately after graduation, and transfer degrees, which prepare students to move into bachelor's degree programs.

Occupational degrees. These associate degrees train students for specific careers. In addition to taking general education classes—such as mathematics, writing, and speech—students take courses specific to an occupational major. To earn an associate of applied science in biotechnology degree at Montgomery College in Rockville, Maryland, for example, students are required to take classes in biology, chemistry, immunology, and drug production, among others. The courses teach basic principles but focus on applying those principles to the workplace. So, instead of learning to isolate a few proteins or DNA strands in a petri dish, students learn to use machines that isolate hundreds at a time. Graduates should be able to move directly from school to jobs in laboratories or production facilities.

Similarly, a course in the international business program at Florida Community College in Jacksonville teaches students

how to complete and file import and export forms and comply with regulations. Graduates of the program can apply those skills as commerce clerks when they leave school.

The best programs tailor courses to industry standards. Schools ask local employers what skills workers need to perform specific occupations. Then, the schools create classes that teach those skills. With the help of advisors from local businesses, curriculums are updated regularly.

The focus on occupations means that classes are more hands-on than are those in bachelor's degree programs. According to surveys by the U.S. Department of Education, teachers in associate degree programs spend more time conducting demonstrations and leading practical exercises. And many of the faculty work in the field in which they teach, so they are able to relate first-hand stories of life on the job.

The opportunity to work on real-life issues is common. Students majoring in industrial design at the Art Institute of Pittsburgh had this chance when they helped to design a bike for scientists in Antarctica. The bike needed to work in harsh conditions over ice and snow, so the students created blueprints for an especially stable, durable contraption. The chance to participate in projects like these in the first year of college draws many students to associate degree programs.

Most students also spend at least some of their classtime in facilities that mirror the workplace. Health technicians, for example, use medical devices they will find at jobsites. In the same way, childcare students often train at onsite daycare centers.

Formal cooperative, or co-op, and internship opportunities are an essential part of many associate degree programs. During a co-op, a student works full time for a limited period in a job related to his or her studies, then returns to school. During an internship, a student works full time or part time while enrolled in school. Often, students receive classroom credit for work on the job. They create journals and portfolios to summarize their experiences and the ways in which they relate to class.

At many schools, students receive certificates after 1 year or less of study and then continue studying toward an associate degree. This gives them an immediate credential to use in the workplace while continuing their studies.

Students also can continue their studies after earning their degree. Although occupational degrees prepare students for a career immediately after graduation, some occupational degree classes can often be transferred to a bachelor's program.

Occupational degrees have different titles. The titles include associate of applied science, associate of applied arts, associate of applied technology, and associate of occupational studies.

Transfer degrees. Another type of associate degree is designed to be a first step toward a bachelor's degree. With a little planning, all of the coursework completed in this degree will transfer to a 4-year school. Students take the introductory classes of a bachelor's degree program, graduating with an associate of arts or an associate of science degree—and about half of the credits they need for a bachelor's degree. Courses include writing, literature, science, and mathematics. Most degree candidates study broad fields like liberal arts or general studies, but some declare majors and earn their degrees in specific areas, such as an associate of arts in literature or an associate of science in chemistry.

Often, classes correspond directly to those offered at local 4-year schools. In fact, most 2-year colleges have agreements with universities stating that their associate degree fulfills all of the general education requirements of a bachelor's degree. A few transfer programs look beyond the bachelor's to a master's or professional degree. Oklahoma Community College's prepharmacy program, for instance, is the first stage of a 6-year Pharm.D. program.

Starting college in an associate degree program has several advantages, including the one most often cited: saving money. For example, in the 2000-01 academic year, average annual in-State tuition and fees were $1,359 at public 2-year community colleges, compared with $3,506 at public 4-year colleges—a savings of more than $2,000. Because many associate degree programs are offered at community colleges, students live nearby—thus avoiding the added expenses of room and board often needed for relocating to a 4-year college or university. And the cost of an associate degree is rising more slowly than that of a bachelor's. Taking grants into account, the cost of an associate degree has not risen in the last decade.

But the advantages of pursuing an associate degree reach beyond cost. Students often receive more personal attention at

2-year schools than they do at 4-year schools, in part because class sizes are smaller in most associate degree programs. And according to the National Center for Education Statistics, associate degree faculty spend a greater proportion of their time teaching.

When applying to a 4-year program, students who earned an associate degree are often given preference over students who completed a semester or two of college credits but did not earn a degree. Associate degree graduates also are more likely than other transfer students to complete their bachelor's degree successfully, according to U.S. Department of Education studies.

For students who have low high school grades or test scores, associate degree programs offer a chance to catch up. Programs at many community colleges are open to anyone with a high school diploma or a passing score on the high school equivalency exam. And nearly all 2-year colleges offer noncredit classes to prepare students for college courses.

Students in transfer programs also benefit from the career focus of 2-year schools. By taking a few occupationally focused courses and participating in career exploration programs, students have an advantage in choosing a major when they start a bachelor's degree program.

Associate degree careers

To be career-ready in 2 years, students need to choose an occupational major early in their school career. And there are plenty of options. An associate degree is the most significant source of training for several occupations, including:

- Computer support technician
- Engineering technician
- Funeral director
- Paralegal
- Semiconductor processor.

Having an associate degree is not required of workers for every available job in any single occupation, but many employers prefer to hire workers who have one. Earning an associate degree can affect the amount of responsibility workers have in an occupation. For example, science technicians with associate degrees often help to set up experiments and interpret results—a greater level of responsibility than the routine tasks assigned to those whose highest level of educational attainment is a high school diploma.

Following are some of the career areas available to workers with an associate degree.

Agriculture and landscaping. Farmwork has gone high tech. Farmers and farm managers use complex technology and marketing practices. To learn such skills, managers often earn bachelor's or master's degrees, but some earn associate degrees. These graduates commonly start work as farm management assistants. Many groundskeeping jobs also are highly skilled. Often, those in supervisory roles and those in complicated specialties, such as golf course maintenance and greenhouse work, have associate or bachelor's degrees. They study landscape design, horticulture, and pest control.

Arts and design. For artistic types, there are several degrees available. Desktop publishing, multimedia, and graphic arts are the fastest growing art-related degrees. Graduates work as artists, webmasters, and animators. Interior design is another popular artistic major, as many States require that interior designers have college training. Entry-level positions in industrial design, fashion design, and set design also are sometimes available to workers with related associate degrees, but competition is keen. Prospects are best for students who take courses in drafting and computer-aided design. Industrial designers often need engineering courses, too.

> Many employers prefer to hire workers who have an associate degree. Earning a degree can also increase the amount of responsibility workers have in an occupation.

Business administration. Business is a popular subject for occupational associate degrees. Business occupations for people with associate degrees include accounting technicians, who collect and prepare financial information; human resources assistants, who help specialists recruit and train employees, keep records, and deal with other personnel issues; and import-export clerks, who major in international business while in school.

Those who concentrate in the study of management learn marketing, employee oversight, and financial controls, which often helps them to become supervisors, enter management training programs, or run their own businesses. Another business concentration, medical office programs, trains students to work in doctors' offices and other medical facilities. Graduates become medical record technicians, medical secretaries, and medical transcriptionists, among other occupations.

Communications. If working behind the scenes in a television or radio station sounds appealing, training to become a radio or television broadcast technician is a good choice. These workers run soundboards, editing machinery, and other broadcast equipment, and they often learn how by earning an associate degree. Cellular, satellite, radio frequency technicians, and other telecommunications technicians also often train this way. Students take courses in electronics, mathematics, and physics.

Computers. Associate degrees are available in general computing, computer networking, programming, and computer

support. In addition to general training, these degrees often include work experience programs and preparation for computer industry certifications. Although they are one of several ways to train for computer occupations, associate degrees often provide students more well-rounded preparation than other training programs do. Associate degree holders also have a foundation for more advanced study.

Construction and metal trades. Many people start careers as electricians, metal workers, or construction tradesworkers by earning associate degrees. Often, they earn these degrees before or during apprenticeships. In some companies, having a degree makes it easier to become a supervisor.

Although apprenticeships are the best known way to train for these occupations, associate degrees offer the advantages of speed—they can be completed in 2 years instead of the average 4 years for an apprenticeship—and availability, as classroom openings are easy to find and students need not wait for a job opening with a local employer.

Drafting. Making accurate drawings and plans is the task of drafters, and many drafters need an associate degree to get a job. Some degree programs are general, training students for many types of drafting. More often, students specialize in one type of drafting, such as architectural or electrical. Classes include computer-aided design, mathematics, and precision drawing.

Education and childcare. For people whose interest is helping others to learn, these degrees can start and advance a career. Many States require that teacher aides, preschool teachers, and childcare workers or their supervisors have a degree. And new Federal laws require that teacher aides in elementary, middle, and high schools have college training. Associate degree students study child development, emergency medical care, activity preparation, and more. Schools also prepare students to take national and State certification exams.

Electronics. Repairers of electrical equipment and robotics, industrial machinery, and vehicles all can receive their training through associate degree programs. Included in their coursework is ample hands-on experience.

Engineering technicians. For those who like science or mathematics, an engineering associate degree is one option—and there are several types. Electromechanical degree students learn to design and test robots and robotic equipment. Electrical engineering students design and test radio frequency equipment, fiber optics, computers, or laboratory equipment, depending on the degree program. Chemical engineering students prepare to work in laboratories or chemical plants. Environmental science students learn to perform and interpret environmental tests, such as those for soil, air, and water quality, and to test pollution control and recycling equipment.

Health care. This is one of the largest—and most lucrative—career fields for those with an associate degree. Associate degrees are a significant source of training for several health occupations. For example, more than half of all registered nurses and dental hygienists have this degree. Physical and occupational therapy assistants usually need an associate degree to be certified. Radiation therapists; respiratory therapists; diagnostic workers, such as radiologic technicians, diagnostic medical sonographers, and EKG technicians; and many technicians, including orthotists and clinical laboratory technicians, also often earn associate degrees.

Many schools have additional requirements for admission to healthcare programs, including a minimum grade point average and completion of high school science classes.

Law enforcement and fire safety. Many schools offer 2-year degrees in criminal justice, corrections, or security. Some police departments and correctional institutions require these degrees in addition to on-the-job training. Students with these degrees also may qualify for positions in private security and inventory protection in stores and other businesses. In addition to State and local laws, students learn about criminal behavior patterns and causes, law enforcement technology and procedures, and other security related subjects.

Legal. Paralegals, who conduct legal research and help to investigate cases, usually are required to have at least an associate degree. Legal assistants and secretaries, who track and prepare legal paperwork and help to conduct research, often have degrees, too. Courses in legal studies include research and writing methods, witness interviewing, recordkeeping, office and library technology, office procedures and confidentiality, and, of course, law.

Library science. Library technicians often earn an associate degree, and some libraries require it for entry-level workers. Technicians with degrees often take on responsibilities, such as complex book cataloging or maintaining library computer systems, that are more complicated than those handled by high school graduates.

Precision production. Semiconductor processing, automation management, plastics molding, and almost any skilled production technique can be learned at a 2-year college. Many of these programs maintain close ties with local employers.

Sciences. An associate degree in the natural sciences, such as biology, chemistry, or physics, prepares students for work as science technicians. Many graduates find work in laboratories, helping scientists conduct research by setting up experiments, taking measurements, and writing reports. Others work in chemical, medical, or electronics production plants, performing work such as checking products for quality and troubleshooting plant machinery. Forensic science technicians also can train with an associate degree, although bachelor's degree holders predominate in many States. Although a degree is not always required for science technicians, it gives students more opportunities and the chance to do more challenging entry-level work.

Social work. An associate degree program in social work or human services trains students to become human service workers. Workers with degrees often are given greater responsibility. Opportunities for graduates include work as child abuse case aides; resident assistants in youth homes, halfway houses, and assisted-living facilities; substance abuse counselors; and youth counselors. And many programs prepare students to become certified in their occupations.

Veterinary technicians. Veterinary technicians nurse animals, assist during surgery, prepare medicines, and perform laboratory tests. Many technicians have an associate degree; in fact, most States now require veterinary technicians to have one, and technicians need a degree before the American College of Veterinary Medicine can certify them. Veterinary technician students study anatomy, biology, medicines and chemistry, and medical procedures.

> Health care is one of the largest—and most lucrative—career fields for those with an associate degree.

Choosing a career

As the previous section shows, there is an associate degree to match nearly any interest. And interests are a good place to start when choosing a career. But there are additional considerations. Earnings and job prospects are two of the most important.

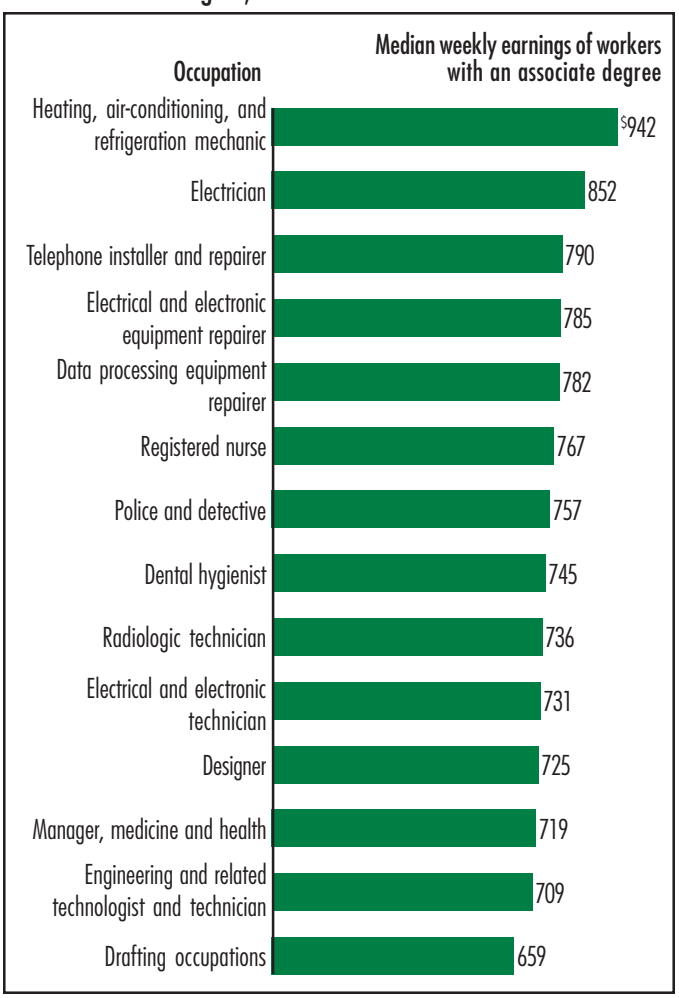
Earnings. Overall, those with an associate degree earn more than do those whose highest level of educational attainment is a high school diploma. One reason is that many employers believe degree holders have demonstrated good communication and organization skills and the ability to commit to long-term projects—like the project of getting a degree. Another reason an associate degree boosts earnings is that employers value the specialized career training graduates have. It's also part of the reason that workers with an occupationally specific degree often earn more than those with general, transferable degrees.

But earnings vary by occupation. Accounting technicians tend to earn more than human service workers do, for example. Chart 1 shows the occupations of the top-earning associate degree holders. And the table beginning on page 10 shows the earnings of workers in various occupations at different levels of educational attainment.

Starting salaries are another consideration. Employers of workers in some occupations offer higher earnings to recent graduates than they do in other occupations. The National

Chart 1

Highest earning occupations commonly held by workers with an associate degree, 2001



Note: At least 15 percent of full-time workers in these occupations had an associate degree in 2001.

Association of Colleges and Employers gathers statistics on starting salaries for associate degree holders. Among the occupations for which associate degree training is available, the Association survey reported the following 2001 starting salaries:

Engineering technicians, electrical	$35,762
Engineering technicians, general	33,065
Computer science	32,897
Business administration	27,371

Available jobs. Job prospects also vary significantly by occupation. BLS projects that, between 2000 and 2010, among the fastest growing occupations and occupations with plentiful job openings are those often requiring workers with an associate degree. Chart 2 shows which occupations among those in which at least 15 percent of workers have an associate degree are expected to have the most job openings between 2000 and 2010.

Choosing a school

After making decisions about the type and subject of degree desired, it is time to choose a school. There are more than 1,600 schools that primarily offer associate degrees, so finding the best fit may require some detective work. Check schools' accreditation, job placement rate, transfer rate, and course offerings. School brochures and Web sites supply information about details such as faculty qualifications, available majors, and extracurricular clubs.

Basic accreditation. Several government-approved organizations evaluate and accredit schools. The approval of these organizations signals that a school meets basic academic and financial standards. There are seven accrediting organizations approved by the U.S. Department of Education, one for each of seven regions.

Professional and industry associations also accredit schools that train workers for their occupations. These associations evaluate school curriculums to decide if they adequately train workers for the field. The American College of Veterinary Medicine, for example, accredits veterinary technician training programs.

Curriculum. Students can also check a school's quality themselves, starting with the type and quality of classes offered. Look for schools that have several classes related to an occupation, including intermediate and advanced levels. Also important is the way in which courses are developed. Schools that update course materials often and ask local businesses for advice when creating curriculum often produce more marketable graduates. Schools should be able to explain how they make curriculum decisions, including what committees and advisory boards they have.

If students plan to transfer to a 4-year program, they should concentrate on schools that have transfer agreements with 4-year schools. Schools should be able to provide data on the number of students who have transferred—and where they have transferred.

Increasingly, 2-year schools are developing honors programs for students looking for additional academic challenges or the chance to participate in advanced seminars and enrichment activities.

Faculty. Schools should be able to provide information about their teachers. Students seeking to earn an occupational degree might look for teachers who have relevant work experience, giving them insight into what skills are needed in the workplace. Academic credentials and other information, such as whether instructors have completed coursework and earned degrees in the subjects they teach, also can be checked. Finally, many instructors may have Web sites that provide clues to their teaching styles, such as class syllabuses.

Academic facilities. The more up to date a school's equipment is, the more up to date its students' skills will be. In occupational programs, look for modern machinery and laboratory equipment. Library resources and access to computers and the Internet also are essential.

Career services. Check into how schools help students choose and find jobs. Most schools offer job placement services and employ career guidance counselors. Some offer seminars and classes on job searching, resume writing, and interviewing. Other schools have longstanding relationships with employers who prefer to hire their graduates. A few have even more aggressive marketing campaigns: calling employers, sending student resumes to employers, and maintaining databases of student resumes for employers to search.

Career services may start at the beginning of a student's

career with career interest counseling but also may include establishing internships and co-ops. Studies show that associate degree students who participate in formal work programs like these are more likely to be satisfied with their school, to be employed in a job related to their training after graduation, and to earn more money.

When evaluating a school's career services, look for measurable results. Many schools have statistics showing how many of their graduates are employed and in what types of jobs and how long it took them to find work. Schools also can provide names of employers who have hired their graduates.

Academic support services. Schools also vary in the extent to which they help students succeed academically. More than 80 percent of community colleges offer remedial help to students, preparing them for college level work. Check to see if schools offer special classes or tutoring for students seeking academic help. Schools also can offer assistance at walk-in writing centers and mathematics clinics. Consider visiting these facilities when choosing among schools. Contacting employers and graduates is one of the best ways to evaluate the skills a school teaches.

Students with physical and learning disabilities should also ask about disability support services. These often include special test-taking arrangements, notetaking and laboratory assistance, recorded textbooks, transportation between classes, and counseling about adaptive techniques.

Results. One way to judge a school is by the success of its students. How many students graduate with a degree? How many are employed? How long did it take them to find a job,

BLS projects that, between 2000 and 2010, among the fastest growing occupations and occupations with plentiful job openings are those often requiring workers with an associate degree.

and is the job related to their degree? How many are accepted to 4-year schools after graduation? Most schools gather statistics like these and can show them to prospective students.

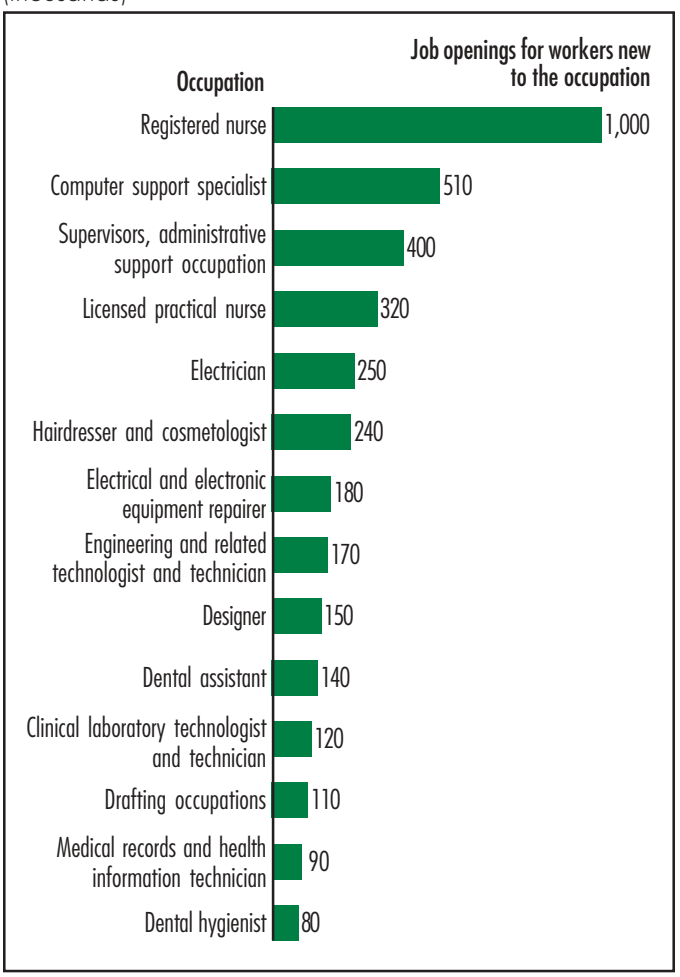
Student life. College is more than classes and books. Among the elements of student life to consider are the following:

- Housing and meals. About 20 percent of schools that offer associate degrees also offer on-campus housing for their students. The remaining 80 percent usually help students find housing by maintaining a list of available apartments and rooms for rent. Many associate degree students live with their families.
- Commuting and parking. The time it takes to get from home to class can be a major factor in a student's success.
- Activities. Most schools offer sports, either divisional or intramural or both. They also offer students opportunities to participate in extracurricular activities such as student clubs, publications, and government.

Chart 2

Job openings in occupations commonly held by workers with an associate degree, projected 2000-10

(thousands)



Note: For these occupations, either 15 percent of workers have an associate degree or BLS analysts consider an associate degree to be the most significant source of job training. Analyst discretion applies for occupations for which reliable educational attainment data are not available.

Earnings of full-time workers aged 16 and older by highest level of educational attainment, 2001

Occupation	Highest level: High school graduate or equivalent		Some college, no degree			Associate degree	
	Percent of workers	Median weekly earnings	Percent of workers	Median weekly earnings	Earnings premium over high school (percent)	Percent of workers	Median weekly earnings
All occupations	**31**	**497**	**20**	**568**	**14**	**9**	**625**
Accountants and auditors	8	522	11	612	17	10	629
Adjusters and investigators	37	492	29	500	2	11	514
Administrators and officials, public administration	15	631	18	703	11	11	743
Assemblers	51	462	15	484	5	5	442
Automobile mechanics	47	571	17	610	7	12	634
Bookkeepers, accounting, and auditing clerks	40	467	30	482	3	12	477
Carpenters	48	599	17	666	11	6	701
Cashiers	38	297	22	305	3	4	314
Clinical laboratory technologists and technicians	18	474	18	544	15	21	646
Computer equipment operators	34	505	30	584	16	15	598
Computer operators	33	509	30	589	16	16	598
Computer programmers	9	741	17	845	14	11	773
Computer systems analysts and scientists	7	891	15	871	-2	9	846
Construction trades	45	624	18	712	14	8	762
Construction trades, except supervisors	45	609	17	702	15	8	759
Cooks	38	332	14	338	2	5	407
Data processing equipment repairers	21	627	33	682	9	20	782
Data-entry keyers	37	444	37	444	0	10	448
Dental assistants	29	373	32	488	31	26	475
Dental hygienists	0		0			55	745
Designers	15	520	20	719	38	15	725
Drafting occupations	0		26	655		30	659
Electrical and electronic engineers	7	1,021	11	947	-7	11	898
Electrical and electronic equipment repairers	34	728	30	736	1	18	785
Electrical and electronic technicians	21	691	33	722	4	24	731
Electricians	43	685	24	787	15	19	852
Engineering and related technologists and technicians	24	681	31	710	4	23	709
Engineers	6	975	11	959	-2	9	922
Fabricators, assemblers, and handworking occupations	50	488	15	522	7	6	496
Farm operators and managers	44	448	18	542	21	8	531
Farmers, except horticultural	46	472	18	719	52	8	523
Financial managers	13	691	17	707	2	8	779
Financial records processing occupations	40	470	29	491	4	13	480
Food preparation and service occupations	35	331	21	339	2	5	389
Freight, stock, and material movers, hand	43	390	19	434	11	4	405
General office clerks	37	457	33	470	3	10	482
Guards	39	424	24	423	0	9	536
Guards and police, except public service	40	433	24	436	1	10	564
Hairdressers and cosmetologists	48	378	21	384	2	18	397
Handlers, equipment cleaners, helpers and laborers	45	407	16	432	6	3	419
Heating, air-conditioning, and refrigeration mechanics	47	716	20	714	0	16	942
Industrial machinery repairers	47	652	20	679	4	13	725
Information clerks	38	406	33	419	3	10	451
Insurance sales occupations	21	586	27	582	-1	10	632
Investigators and adjusters, except insurance	39	484	30	491	1	11	502
Janitors and cleaners	46	387	12	405	5	4	414

of educational attainment

		Bachelor's or higher degree			All workers	
Earnings premium over high school (percent)	Earnings premium over some college (percent)	Percent of workers	Median weekly earnings	Earnings premium over associate degree (percent)	Total employed, 2001	Median earnings, 2001
26	**10**	**19**	**832**	**33**	**135,036**	**597**
20	3	56	849	35	1,657	777
4	3	17	605	18	1,944	510
18	6	33	963	30	724	888
-4	-9	4	504	14	1,132	433
11	4	0		—	815	540
2	-1	12	537	13	1,614	477
17	5	4	605	-14	1,476	572
6	3	4	383	22	2,991	299
36	19	37	786	22	356	609
18	2	0		—	327	549
17	2	0		—	320	555
4	-9	48	1,024	32	654	960
-5	-3	48	1,139	35	1,800	1,096
22	7	5	777	2	6,243	611
25	8	4	754	-1	5,254	593
23	20	4	415	2	2,065	323
25	15	20	755	-3	312	708
1	1	9	498	11	687	447
27	-3	0		—	219	437
		0		—	110	728
39	1	41	830	14	792	745
	1	0		—	223	700
-12	-5	48	1,206	34	735	1,166
8	7	12	783	0	986	748
6	1	17	841	15	480	731
24	8	0		—	833	730
4	0	17	776	9	1,012	713
-5	-4	50	1,154	25	2,102	1,140
2	-5	4	505	2	1,828	464
19	-2	13	582	10	1,120	499
11	-27	12	211	-60	851	436
13	10	44	1,128	45	749	1,023
2	-2	12	581	21	2,206	483
18	15	5	416	7	6,255	320
4	-7	4	418	3	2,011	385
5	3	11	519	8	906	470
26	27	10	708	32	945	424
30	29	10	727	29	795	438
5	3	0		—	845	380
3	-3	4	445	6	5,316	389
32	32	0		—	327	711
11	7	0		—	453	649
11	8	10	532	18	2,014	420
8	9	37	914	45	587	681
4	2	14	578	15	1,173	498
7	2	3	411	-1	2,163	363

Getting ready

Preparing for an associate degree starts in high school. More than sixty percent of 2-year colleges have open admissions policies, meaning they are available to anyone with a high school diploma or a passing score on the high school equivalency exam. But good high school preparation gives students the skills they need to complete an associate degree program. The best way to get ready is to take college-preparatory courses, including English, mathematics through algebra or higher, science, history, and social studies.

For those interested in an occupational program, related vocational training classes that may be available at their high school can help to confirm an interest and teach basic skills.

Some high schools offer dual enrollment programs. Through these programs, students can earn college credit toward an associate degree for work they do in high school. Tech-prep is one example. In addition to the standard curriculum, tech-prep students take occupationally focused courses during their final 2 years of high school. If they choose, they can continue studies in community college to build on those courses and earn a degree at an accelerated pace.

> The best way to get ready for an associate degree program is to take college-preparatory courses, including English, mathematics, science, history, and social studies.

Getting in. To apply for admissions to an associate degree program, prospective students must complete an application and provide copies of their high school transcripts. Some schools require students to include an essay or statement of intent describing what they want to study and why. Schools without open admissions may require scores from the Scholastic Aptitude Test or subject-specific College Achievement Test.

Even at schools that have open admissions, some types of programs have special entry requirements. Certain technical degrees, for example, require applicants to have completed advanced algebra or precalculus or specific science courses. Applicants to early childhood education degree programs sometimes must have experience working with children, submit to background checks, and provide references.

Regardless of the subject they hope to study, almost all students must take standard assessment tests before they can register for classes. These tests measure English and mathematics skills and, sometimes, science knowledge. Based on the results, students are placed in classes that fit their skill

(continued)

Earnings of full-time workers aged 16 and older by highest level of educational attainment, 2001

Occupation	Highest level of: High school graduate or equivalent		Some college, no degree			Associate degree	
	Percent of workers	Median weekly earnings	Percent of workers	Median weekly earnings	Earnings premium over high school (percent)	Percent of workers	Median weekly earnings
Legal assistants	18	536	25	646	21	18	621
Licensed practical nurses	16	561	31	567	1	46	558
Machine operators and tenders, except precision	51	483	14	518	7	5	522
Machine operators, assorted materials	52	488	15	528	8	5	511
Machinists	52	690	21	706	2	12	726
Mail and message distributing occupations	43	623	30	698	12	9	671
Managers, food serving and lodging establishments	34	505	26	594	18	8	680
Managers, marketing, advertising, and public relations	12	705	20	924	31	8	1,028
Managers, medicine and health	16	615	20	667	8	15	719
Managers, properties and real estate	24	588	26	664	13	10	710
Mechanics and repairers, except supervisors	44	648	22	705	9	14	739
Motor vehicle operators	49	592	20	610	3	6	639
Nursing aides, orderlies, and attendants	44	362	27	391	8	6	417
Officials and administrators, public administration	15	625	18	706	13	11	749
Personnel, training, and labor relations specialists	17	637	20	644	1	12	645
Plumbers, pipefitters, and steamfitters	50	683	17	840	23	12	776
Police and detectives	28	594	32	692	16	15	757
Precision metal working occupations	51	685	21	718	5	13	779
Production inspectors, testers, samplers, and weighers	47	485	19	548	13	8	611
Radiologic technicians	0		0			51	736
Real estate sales occupations	20	741	27	604	-18	12	663
Receptionists	42	394	33	404	3	9	414
Records processing occupations, except financial	33	463	32	461	0	12	500
Registered nurses	2	698	5	690	-1	38	767
Sales representatives, finance and business services	19	588	23	602	2	9	635
Sales representatives, mining, manufacturing, and wholesale	22	642	20	743	16	9	765
Sales representatives, except retail	22	645	20	750	16	9	768
Sales workers, retail and personal services	35	340	25	378	11	5	377
Secretaries	42	459	30	489	7	13	459
Social workers	8	514	11	496	-4	7	491
Social, recreation, and religious workers	9	481	15	493	2	6	503
Supervisors and proprietors, sales occupations	33	519	25	615	18	9	609
Supervisors, administrative support occupations	34	557	27	580	4	11	653
Supervisors, construction occupations	45	762	20	798	5	10	774
Supervisors, production occupations	47	675	21	758	12	8	796
Teacher aides	37	351	32	356	1	13	389
Teachers, except college and university	6	380	8	429	13	4	505
Teachers, prekindergarten and kindergarten	19	320	21	325	2	11	428
Technicians, except health, engineering, and science	12	667	21	714	7	13	688
Telephone installers and repairers	37	805	29	819	2	18	790
Therapists	0		0			12	742
Truckdrivers	50	608	19	627	3	5	664
Typists	38	485	31	474	-2	11	494
Vehicle and mobile equipment mechanics and repairers	48	620	18	691	11	12	671
Waiters and waitresses	32	331	35	334	1	5	401
Writers, artists, entertainers, and athletes	14	563	19	671	19	9	689

educational attainment

		Bachelor's or higher degree			All workers	
Earnings premium over high school (percent)	Earnings premium over some college (percent)	Percent of workers	Median weekly earnings	Earnings premium over associate degree (percent)	Total employed, 2001	Median earnings, 2001
16	-4	31	710	14	397	646
-1	-2	0		—	379	571
8	1	3	562	8	4,196	450
5	-3	3	596	17	2,515	465
5	3	0		—	488	679
8	-4	11	671	0	928	652
35	14	18	762	12	1,462	593
46	11	49	1,239	21	769	1,119
17	8	29	947	32	777	783
21	7	25	973	37	595	697
14	5	6	776	5	4,552	653
8	5	5	624	-2	4,373	577
15	7	4	393	-6	2,091	361
20	6	33	970	30	745	886
1	0	38	791	23	676	715
14	-8	0		—	543	678
27	9	21	789	4	1,066	687
14	8	0		—	857	691
26	11	7	631	3	709	485
		0		—	166	710
-11	10	33	1,015	53	803	752
5	2	7	489	18	1,044	400
8	8	12	526	5	1,069	471
10	11	44	859	12	2,168	823
8	5	39	998	57	2,890	756
19	3	40	1,012	32	1,473	841
19	2	41	1,024	33	1,504	851
11	0	10	613	63	6,719	362
0	-6	10	511	11	2,425	475
-4	-1	47	627	28	781	641
5	2	38	636	26	1,436	641
17	-1	22	811	33	4,840	620
17	13	20	773	18	726	618
2	-3	11	845	9	989	754
18	5	10	923	16	1,092	710
11	9	13	384	-1	780	362
33	18	46	684	35	5,460	733
34	32	33	647	51	652	485
3	-4	42	963	40	1,388	832
-2	-4	0		—	294	804
		39	840	13	502	789
9	6	4	728	10	3,171	595
2	4	14	520	5	527	485
8	-3	3	706	5	1,798	611
21	20	7	451	12	1,358	325
22	3	42	811	18	2,547	750

levels. Some students begin immediately with college level classes; others start noncredit classes to sharpen their skills.

Getting credit. Students usually can take exams to get college credit for what they know, shortening the time it takes to get a degree. Just like 4-year colleges and universities, 2-year schools offer credit to students who take advanced placement tests, International Baccalaureate exams, and College Level Examination Program tests. Many colleges also give credit for some types of military training and experience and for portfolios that demonstrate skills learned on the job.

Learn more

Reading this article is a step toward learning about associate degrees. To help make the best decisions about your career and how to train for it, continue researching at local libraries and career centers. Directories of associate degree programs, course catalogs, and career guidance materials are good sources of information. Available at most libraries and career centers are the Encyclopedia of Associations and the *Occupational Outlook Handbook*, both of which provide information about occupational associations. The *Handbook* also describes hundreds of occupations and how to train for them.

> Many colleges give credit for some types of military training and experience and for portfolios that demonstrate skills learned on the job.

Counselors at high schools and career centers have information about local associate degree programs, labor market conditions, and sources of financial aid.

The U.S. Department of Education offers forms for applying for financial aid, information about accreditation, and a searchable database of available programs.

The American Association of Community Colleges has a database of community colleges, each of which grants associate degrees. The Association also publishes articles about new degree programs.

Finally, the easiest way to learn about specific degree programs is to request information from the schools that offer them. Nearly every school provides free publications, and many maintain Web sites describing programs and facilities. And for more details, consider calling, writing, or visiting prospective teachers. Faculty and counselors usually are happy to speak with would-be students about courses and careers.