

and religious organizations. The Federal Government, primarily the U.S. Department of Defense and the U.S. Library of Congress, and State and local governments also employed library technicians.

Training, Other Qualifications, and Advancement

Training requirements for library technicians vary widely, ranging from a high school diploma to specialized postsecondary training. Some employers hire individuals with work experience or other training; others train inexperienced workers on the job. Other employers require that technicians have an associate or bachelor’s degree. Given the rapid spread of automation in libraries, computer skills are needed for many jobs. Knowledge of databases, library automation systems, online library systems, online public access systems, and circulation systems is valuable.

Some 2-year colleges offer an associate of arts degree in library technology. Programs include both liberal arts and library-related study. Students learn about library and media organization and operation, and how to order, process, catalogue, locate, and circulate library materials and work with library automation. Libraries and associations offer continuing education courses to keep technicians abreast of new developments in the field.

Library technicians usually advance by assuming added responsibilities. For example, technicians often start at the circulation desk, checking books in and out. After gaining experience, they may become responsible for storing and verifying information. As they advance, they may become involved in budget and personnel matters in their department. Some library technicians advance to supervisory positions and are in charge of the day-to-day operation of their department.

Many bookmobile drivers are required to have a commercial driver’s license.

Job Outlook

Employment of library technicians is expected to grow about as fast as the average for all occupations through 2010. In addition to employment growth, some job openings will result from the need to replace library technicians who transfer to other fields or leave the labor force.

The increasing use of library automation is expected to spur job growth among library technicians. Computerized information systems have simplified certain tasks, such as descriptive cataloguing, which can now be handled by technicians instead of librarians. For example, technicians can now easily retrieve information from a central database and store it in the library’s computer. Although efforts to contain costs could dampen employment growth of library technicians in school, public, and college and university libraries, cost containment efforts could also result in more hiring of library technicians than librarians. Growth in the number of professionals and other workers who use special libraries should result in good job opportunities for library technicians in those settings.

Earnings

Median annual earnings of library technicians in 2000 were \$23,170. The middle 50 percent earned between \$17,820 and \$29,840. The lowest 10 percent earned less than \$13,810, and the highest 10 percent earned more than \$35,660. Median annual earnings in the industries employing the largest numbers of library technicians in 2000 were as follows:

Colleges and universities	\$25,320
Local government	22,910
Elementary and secondary schools	21,120

Salaries of library technicians in the Federal Government averaged \$33,224 in 2001.

Related Occupations

Library technicians perform organizational and administrative duties. Workers in other occupations with similar duties include library assistants, clerical; information and record clerks; and medical records and health information technicians.

Sources of Additional Information

For information on training programs for library/media technical assistants, write to:

- ▶ American Library Association, Office for Human Resource Development and Recruitment, 50 East Huron St., Chicago, IL 60611. Internet: <http://www.ala.org>

Information on acquiring a job as a library technician with the Federal Government may be obtained from the Office of Personnel Management through a telephone-based system. Consult your telephone directory under U.S. Government for a local number, or call (912) 757-3000; Federal Relay Service (800) 877-8339. The first number is not tollfree and charges may result. Information also is available on the Internet: <http://www.usajobs.opm.gov>.

Information concerning requirements and application procedures for positions in the Library of Congress can be obtained directly from:

- ▶ Human Resources Office, Library of Congress, 101 Independence Ave. SE., Washington, DC 20540-2231.

State library agencies can furnish information on requirements for technicians, and general information about career prospects in the State. Several of these agencies maintain job hotlines reporting openings for library technicians.

State departments of education can furnish information on requirements and job opportunities for school library technicians.

Teacher Assistants

(O*NET 25-9041.00)

Significant Points

- Approximately 4 in 10 teacher assistants work part time.
- Educational requirements range from a high school diploma to some college training.
- A growing special education population, among other factors, is expected to cause faster than average employment growth.

Nature of the Work

Teacher assistants provide instructional and clerical support for classroom teachers, allowing teachers more time for lesson planning and teaching. Teacher assistants tutor and assist children in learning class material using the teacher’s lesson plans, providing students with individualized attention. Teacher assistants also supervise students in the cafeteria, schoolyard, school discipline center, or on field trips. They record grades, set up equipment, and help prepare materials for instruction. Teacher assistants are also called teacher aides or instructional aides. Some refer to themselves as paraprofessionals.

Some teacher assistants perform exclusively noninstructional or clerical tasks, such as monitoring nonacademic settings. Playground and lunchroom attendants are examples of such assistants. Most teacher assistants, however, perform a combination of instructional and clerical duties. They generally instruct children, under the direction and guidance of teachers. They work with students

individually or in small groups—listening while students read, reviewing or reinforcing classwork, or helping them find information for reports. At the secondary school level, teacher assistants often specialize in a certain subject, such as math or science. Teacher assistants often take charge of special projects and prepare equipment or exhibits, such as for a science demonstration. Some assistants work in computer laboratories, helping students using computers and educational software programs.

In addition to instructing, assisting, and supervising students, teacher assistants grade tests and papers, check homework, keep health and attendance records, type, file, and duplicate materials. They also stock supplies, operate audiovisual equipment, and keep classroom equipment in order.

Many teacher assistants work extensively with special education students. As schools become more inclusive, integrating special education students into general education classrooms, teacher assistants in general education and special education classrooms increasingly assist students with disabilities. Teacher assistants attend to a disabled student's physical needs, including feeding, teaching good grooming habits, or assisting students riding the school bus. They also provide personal attention to students with other special needs, such as those whose families live in poverty, or students who speak English as a second language, or who need remedial education. Teacher assistants help assess a student's progress by observing performance and recording relevant data.

Teacher assistants also work with infants and toddlers who are disabled or developmentally delayed. Under the guidance of a teacher or therapist, teacher assistants perform exercises or play games to help the child develop physically and behaviorally. Some teacher assistants work with young adults helping them obtain a job or apply for community services for the disabled.

Working Conditions

Approximately 4 in 10 teacher assistants work part time. However, even among full-time workers, nearly half work less than 8 hours per day. Most assistants who provide educational instruction work the traditional 9- to 10-month school year. Teacher assistants work in a variety of settings, including private homes, preschools, or in local government offices working with young adults. But most work in classrooms in elementary, middle, and secondary schools. They also work outdoors supervising recess when weather allows, and they spend much of their time standing, walking, or kneeling.



Teacher assistants work one-on-one or with small groups of students to provide the extra help they may need.

Seeing students develop and gain appreciation of the joy of learning can be very rewarding. However, working closely with students can be both physically and emotionally tiring. Teacher assistants who work with special education students often perform more strenuous tasks, including lifting, as they help students with their daily routine. Those who perform clerical work may tire of administrative duties, such as copying materials or typing.

Employment

Teacher assistants held almost 1.3 million jobs in 2000. About 80 percent worked in public and private education, mostly in the elementary grades. Approximately half assisted special education teachers in working with children with disabilities. Most of the others worked in child daycare centers and religious organizations.

Training, Other Qualifications, and Advancement

Educational requirements for teacher assistants range from a high school diploma to some college training. Teacher assistants with instructional responsibilities usually require more training than those who do not perform teaching tasks. Increasingly, employers prefer teacher assistants who have some college training. Some teacher assistants are aspiring teachers who are working towards their degree while gaining experience. Many schools require previous experience in working with children. Schools often require a valid driver's license and perform a background check on applicants.

A number of 2-year and community colleges offer associate degree programs that prepare graduates to work as teacher assistants. However, most teacher assistants receive on-the-job training. Those who tutor and review lessons with students must have a thorough understanding of class materials and instructional methods, and should be familiar with the organization and operation of a school. Teacher assistants also must know how to operate audiovisual equipment, keep records, and prepare instructional materials, as well as have adequate computer skills.

Teacher assistants should enjoy working with children from a wide range of cultural backgrounds, and be able to handle classroom situations with fairness and patience. Teacher assistants also must demonstrate initiative and a willingness to follow a teacher's directions. They must have good writing skills and be able to communicate effectively with students and teachers. Teacher assistants who speak a second language, especially Spanish, are in great demand to communicate with growing numbers of students and parents whose primary language is not English.

About one third of all States have established guidelines or minimum educational standards for the hiring and training of teacher assistants, and an increasing number of States are in the process of implementing them. Although requirements vary by State, most require an individual to have at least a high school diploma or general equivalency degree (G.E.D.), or some college training. In States that have not established guidelines or minimum educational standards, local school districts determine hiring requirements.

Advancement for teacher assistants, usually in the form of higher earnings or increased responsibility, comes primarily with experience or additional education. Some school districts provide time away from the job or tuition reimbursement so that teacher assistants can earn their bachelor's degrees and pursue licensed teaching positions. In return for tuition reimbursement, assistants are often required to teach a certain length of time for the school district.

Job Outlook

Employment of teacher assistants is expected to grow faster than the average for all occupations through 2010. Many school districts report shortages of teachers. If schools continue to experience problems hiring teachers, the demand for teacher assistants to

assist and monitor students and provide teachers with clerical assistance will grow. In addition, despite projections of only moderate increases in overall student enrollments, the number of special education students and those who speak English as a second language are expected to grow more rapidly. Because teacher assistants play a large role in helping students with special needs, the rising number of these students will create additional demand for teacher assistants. In addition to jobs stemming from employment growth, numerous job openings will arise as workers transfer to other occupations, leave the labor force to assume family responsibilities, return to school, or leave for other reasons—characteristic of occupations that require limited formal education and offer relatively low pay.

The number and size of special education programs are growing in response to increasing enrollments of students with disabilities. Federal legislation mandates appropriate education for all children, and emphasizes placing children with disabilities into regular school settings, when possible. Children with special needs require much personal attention, and special education teachers, as well as general education teachers with special education students, rely heavily on teacher assistants.

School reforms that call for more individual instruction should further enhance employment opportunities for teacher assistants. As schools strive to meet new standards, they are hiring more teacher assistants to provide students with the personal instruction and remedial education they need. An increasing number of after-school programs and summer programs also will create new opportunities for teacher assistants.

Demand is expected to vary by region of the country. Where population growth is fastest, such as in areas of the South and West, school enrollments are also rising quickly, resulting in stronger demand for teacher assistants. Teacher assistants, particularly those that can speak a foreign language, are in demand in school systems with large numbers of immigrants.

Earnings

Median annual earnings of teacher assistants in 2000 were \$17,350. The middle 50 percent earned between \$13,930 and \$22,080. The lowest 10 percent earned less than \$12,260, and the highest 10 percent earned more than \$27,550.

Teacher assistants who work part time ordinarily do not receive benefits. Full-time workers usually receive health coverage and other benefits.

About 4 out of 10 teacher assistants belonged to unions in 2000—mainly the American Federation of Teachers and the National Education Association—which bargain with school systems over wages, hours, and the terms and conditions of employment.

Related Occupations

Teacher assistants who instruct children have duties similar to those of preschool, kindergarten, elementary, middle, and secondary school teachers, special education teachers, and school librarians. However, teacher assistants do not have the same level of responsibility or training. The support activities of teacher assistants and their educational backgrounds are similar to those of childcare workers, library technicians, and library assistants. Teacher assistants who work with children with disabilities perform many of the same functions as occupational therapy assistants and aides.

Sources of Additional Information

For information on teacher assistants, including training and certification, contact:

► American Federation of Teachers, Paraprofessional and School Related Personnel Division, 555 New Jersey Ave. NW., Washington, DC 20001. Internet: <http://www.aft.org/psrp>

For information on a career as a teacher assistant, contact:

► National Resource Center for Paraprofessionals in Education and Related Services, 6526 Old Main Hill, Utah State University, Logan, UT 84322. Internet: <http://www.nrcpara.org>

School superintendents and State departments of education can provide details about employment requirements.

Teachers—Adult Literacy and Remedial and Self-Enrichment Education

(O*NET 25-3011.00, 25-3021.00)

Significant Points

- The majority of employed adult teachers work part time and receive no benefits; many unpaid volunteers also teach these subjects.
- Opportunities for teachers of English as a Second Language are expected to be very good, as the number of immigrants seeking classes is expected to increase.
- Demand for self-enrichment courses is expected to rise as more people embrace lifelong learning.

Nature of the Work

Adult literacy and remedial education teachers provide adults and out-of-school youths the education needed to read, write, and speak English, and to perform basic math calculations—basic skills that equip them to solve problems well enough to become active participants in our society, to hold a job, and to further their education. Students in adult literacy and remedial education classes are made up of those who dropped out of school or have passed through the school system without an adequate education. It also includes students who want to take the General Educational Development examination, better known as the GED exam. The GED certificate—earned by passing the GED exam—generally is considered the equivalent of a high school diploma. Increasingly, though, the students in adult education classes are immigrants whose native language is not English. In contrast, *self-enrichment teachers*, unlike other adult education teachers, teach courses that students take for personal enrichment, such as cooking, dancing, creative writing, golf or tennis, photography, or personal finance.

Adult literacy and remedial education teachers, more commonly called *adult basic education teachers*, teach basic academic courses in math, geography, history, reading, writing, science, and other areas. They teach these subjects to students 16 years of age and older who have up to an eighth grade level education. Many of these adults have learning disabilities or emotional problems that prevented them from learning effectively in regular school. Because the students often are at different proficiency levels for different subjects, remedial education teachers must make individual assessments beforehand of each student's abilities. The assessment is used in many programs to develop an individualized education plan for each student. Teachers are required to evaluate students periodically to determine if they should be promoted to the next level.

Teachers who teach literacy to non-English speaking students are called *English as a Second Language (ESL)* or English to Speakers of Other Languages (ESOL) teachers. Along with English, ESL teachers provide survival and life skills instruction, and lessons on math, health, citizenship, and vocational topics. Adult education teachers, particularly ESL teachers, use real-life situations to promote