

mandatory preschool for 4-year-olds, and all-day kindergarten have been implemented in a few States, but implementation nationwide has been limited. Additional teachers, particularly preschool and early elementary school teachers, will be needed if States or localities implement any of these measures. Because of a shortage of teachers in certain locations and in anticipation of the loss of a number of teachers to retirement, many States are implementing policies that will encourage more students to become teachers. Some are giving large signing bonuses that are distributed over the teacher's first few years of teaching. Some are expanding State scholarships; issuing loans for moving expenses; and implementing loan-forgiveness programs, allowing education majors with at least a B average to receive State-paid tuition so long as they agree to teach in the State for 4 years.

The supply of teachers also is expected to increase in response to reports of improved job prospects, more teacher involvement in school policy, and greater public interest in education. In recent years, the total number of bachelor's and master's degrees granted in education has steadily increased. In addition, more teachers will be drawn from a reserve pool of career changers, substitute teachers, and teachers completing alternative certification programs, relocating to different schools, and re-entering the workforce.

Earnings

Median annual earnings of kindergarten, elementary, middle, and secondary school teachers ranged from \$37,610 to \$42,080 in 2000; the lowest 10 percent earned \$23,320 to \$28,460; the top 10 percent earned \$57,590 to \$64,920. Median earnings for preschool teachers were \$17,810.

According to the American Federation of Teachers, beginning teachers with a bachelor's degree earned an average of \$27,989 in the 1999-2000 school year. The estimated average salary of all public elementary and secondary school teachers in the 1999-2000 school year was \$41,820. Private school teachers generally earn less than public school teachers.

In 1999, more than half of all public school teachers belonged to unions—mainly the American Federation of Teachers and the National Education Association—that bargain with school systems over wages, hours, and the terms and conditions of employment.

Teachers can boost their salary in a number of ways. In some schools, teachers receive extra pay for coaching sports and working with students in extracurricular activities. Getting a master's degree or national certification often results in a raise in pay, as does acting as a mentor teacher. Some teachers earn extra income during the summer teaching summer school or performing other jobs in the school system.

Related Occupations

Preschool, kindergarten, elementary, middle, and secondary school teaching requires a variety of skills and aptitudes, including a talent for working with children; organizational, administrative, and recordkeeping abilities; research and communication skills; the power to influence, motivate, and train others; patience; and creativity. Workers in other occupations requiring some of these aptitudes include teachers—postsecondary; counselors; teacher assistants; education administrators; librarians; childcare workers; public relations specialists; social workers; and athletes, coaches, umpires, and related workers.

Sources of Additional Information

Information on licensure or certification requirements and approved teacher training institutions is available from local school systems and State departments of education.

Information on the teaching profession and on how to become a teacher can be obtained from:

► Recruiting New Teachers, Inc., 385 Concord Ave., Suite 103, Belmont, MA 02478. Internet: <http://www.rnt.org>

This organization also sponsors another Internet site that provides helpful information on becoming a teacher:

<http://www.recruitingteachers.org>

Information on teachers' unions and education-related issues may be obtained from:

► American Federation of Teachers, 555 New Jersey Ave. NW., Washington, DC 20001. Internet: <http://www.aft.org>

► National Education Association, 1201 16th St. NW., Washington, DC 20036. Internet: <http://www.nea.org>

A list of institutions with accredited teacher education programs can be obtained from:

► National Council for Accreditation of Teacher Education, 2010 Massachusetts Ave. NW., Suite 500, Washington, DC 20036. Internet:

<http://www.ncate.org>

For information on careers in educating children and issues affecting preschool teachers, contact:

► National Association for the Education of Young Children, 1509 16th St. NW., Washington, DC 20036. Internet: <http://www.naeyc.org>

► Association for Childhood Education International, 17904 Georgia Ave., Suite 215, Olney, MD 20832-2277. Internet: <http://www.acei.org>

For eligibility requirements and a description of the Child Development Associate credential, contact:

► Council for Early Childhood Professional Recognition, 2460 16th St. NW., Washington, DC 20009. Internet: <http://www.cdacouncil.org>

Teachers—Special Education

(O*NET 25-2041.00, 25-2042.00, 25-2043.00)

Significant Points

- A bachelor's degree, completion of an approved teacher preparation program, and a license are required to qualify; many States require a master's degree.
- Many States offer alternative licensure programs to attract people into these jobs.
- Excellent job prospects are expected due to rising enrollments of special education students and reported shortages of qualified teachers.

Nature of the Work

Special education teachers work with children and youths who have a variety of disabilities. A small number of special education teachers work with severely mentally retarded or autistic children, primarily teaching them life skills and basic literacy. However, the majority of special education teachers work with children with mild to moderate disabilities, using the general education curriculum, or modifying it, to meet the child's individual needs. Most special education teachers instruct students at the elementary, middle, and secondary school level, although some teachers work with infants and toddlers.

The various types of disabilities qualifying for special education programs include specific learning disabilities, speech or language impairments, mental retardation, emotional disturbance, multiple disabilities, hearing impairments, orthopedic impairments, visual impairments, autism, deaf-blindness, traumatic brain injury, and other health impairments. Students are classified under one of the categories, and special education teachers are prepared to work with specific groups. Early identification of a child with special needs is

an important part of a special education teacher's job. Early intervention is essential in educating children with disabilities.

Special education teachers use various techniques to promote learning. Depending on the disability, teaching methods can include individualized instruction, problem-solving assignments, and small group work. When students need special accommodations for test-taking, special education teachers see that appropriate ones are provided, such as having the questions read orally or lengthening the time allowed to take the test.

Special education teachers help to develop an Individualized Education Program (IEP) for each special education student. The IEP sets personalized goals for each student and is tailored to a student's individual learning style and ability. This program includes a transition plan outlining specific steps to prepare special education students for middle school or high school, or in the case of older students, a job or postsecondary study. Teachers review the IEP with the student's parents, school administrators, and often the student's general education teacher. Teachers work closely with parents to inform them of their child's progress and suggest techniques to promote learning at home.

Special education teachers design and teach appropriate curricula, assign work geared toward each student's ability, and grade papers and homework assignments. They are involved in a student's behavioral as well as academic development. They help special education students develop emotionally, be comfortable in social situations, and be aware of socially acceptable behavior. Preparing special education students for daily life after graduation is an important aspect of the job. Teachers help students learn routine skills, such as balancing a checkbook, or provide them with career counseling.

As schools become more inclusive, special education teachers and general education teachers increasingly work together in general education classrooms. Special education teachers help general educators adapt curriculum materials and teaching techniques to meet the needs of students with disabilities. They coordinate the work of teachers, teacher assistants, and related personnel, such as therapists and social workers, to meet the requirements of inclusive special education programs, in addition to teaching special education students. A large part of a special education teacher's job involves interacting with others. They communicate frequently with parents, social workers, school psychologists, occupational and physical therapists, school administrators, and other teachers.

Special education teachers work in a variety of settings. Some have their own classrooms and teach only special education students; others work as special education resource teachers and offer individualized help to students in general education classrooms; and others teach with general education teachers in classes composed of both general and special education students. Some teachers work in a resource room, where special education students work several hours a day, separate from their general education classroom. A significantly smaller proportion of special education teachers works in residential facilities or tutor students in homebound or hospital environments.

Special education teachers who work with infants usually travel to the child's home to work with the child and his or her parents. Many of these infants have medical problems that slow or preclude normal development. Special education teachers show parents techniques and activities designed to stimulate the infant and encourage the growth of the child's skills. Toddlers usually receive their services at a preschool where special education teachers help them develop social, self-help, motor, language, and cognitive skills, often through the use of play.

Technology is playing an increasingly important role in special education. Special education teachers use specialized equipment



The methods of teaching used by special education teachers include individualized instruction, problem-solving assignments, and group work.

such as computers with synthesized speech, interactive educational software programs, and audiotapes to assist children.

Working Conditions

Special education teachers enjoy the challenge of working with students with disabilities and the opportunity to establish meaningful relationships. Although helping these students can be highly rewarding, the work can also be emotionally and physically draining. Many special education teachers are under considerable stress due to heavy workloads and administrative tasks. They must produce a substantial amount of paperwork documenting each student's progress and work under the threat of litigation by students' parents if correct procedures are not followed, or if the parents feel their child is not receiving an adequate education. The physical and emotional demands of the job cause some special education teachers to leave the occupation.

Some schools offer year-round education for special education students, but most special education teachers only work the traditional 10-month school year.

Employment

Special education teachers held a total of about 453,000 jobs in 2000. The majority—234,000—taught preschool, kindergarten, and elementary school students. Another 96,000 taught middle school students, and 123,000 taught secondary school students. Most taught in public and private schools, but a few worked in specialized educational facilities, residential facilities, or in homebound or hospital environments.

Training, Other Qualifications, and Advancement

All 50 States and the District of Columbia require special education teachers to be licensed. State boards of education or a licensure advisory committee usually grant licenses, and licensure varies by State. In many States, special education teachers receive a general education credential to teach kindergarten through grade 12. These teachers train in a specialty, such as learning disabilities or behavioral disorders. Some States offer general special education licenses, others license several different specialties within special education, while others require teachers to first obtain a general education license and then an additional license in special education.

All States require a bachelor's degree and completion of an approved teacher preparation program with a prescribed number of subject and education credits and supervised practice teaching. Many States require special education teachers to obtain a master's degree in special education, involving at least 1 year of additional coursework, including a specialization, beyond the bachelor's degree.

Some States have reciprocity agreements allowing special education teachers to transfer their license from one State to another, but many still require special education teachers to pass licensing requirements for that State. In the future, employers may recognize certification or standards offered by a national organization.

Many colleges and universities across the United States offer programs in special education, including undergraduate, master's, and doctoral programs. Special education teachers usually undergo longer periods of training than general education teachers. Most bachelor's degree programs are 4-year programs including general and specialized courses in special education. However, an increasing number of institutions require a fifth year or other postbaccalaureate preparation. Courses include educational psychology, legal issues of special education, child growth and development, and knowledge and skills needed for teaching students with disabilities. Some programs require specialization. Others offer generalized special education degrees, or study in several specialized areas. The last year of the program usually is spent student teaching in a classroom supervised by a certified teacher.

Alternative and emergency licenses are available in many States, due to the need to fill special education teaching positions. Alternative licenses are designed to bring college graduates and those changing careers into teaching more quickly. Requirements for an alternative license may be less stringent than for a regular license and vary by State. In some programs, individuals begin teaching quickly under a provisional license. They can obtain a regular license by teaching under the supervision of licensed teachers for a period of 1 to 2 years while taking education courses. Emergency licenses are granted when States have difficulty finding licensed special education teachers to fill positions.

Special education teachers must be patient, able to motivate students, understanding of their students' special needs, and accepting of differences in others. Teachers must be creative and apply different types of teaching methods to reach students who are having difficulty. Communication and cooperation are essential traits because special education teachers spend a great deal of time interacting with others, including students, parents, and school faculty and administrators.

Special education teachers can advance to become supervisors or administrators. They may also earn advanced degrees and become instructors in colleges that prepare others for special education teaching. In some school systems, highly experienced teachers can become mentor teachers to less experienced ones; they provide guidance to these teachers while maintaining a light teaching load.

Job Outlook

Employment of special education teachers is expected to increase faster than the average for all occupations through 2010, spurred by continued growth in the number of special education students needing services, legislation emphasizing training and employment for individuals with disabilities, and educational reforms requiring higher standards for graduation. The need to replace special education teachers who switch to general education, change careers altogether, or retire will lead to additional job openings. At the same time, many school districts report shortages of qualified teachers. As a result, special education teachers should have excellent job prospects.

The job outlook varies by geographic area and specialty. Although all areas of the country report difficulty finding qualified applicants, positions in inner cities and rural areas usually are more plentiful than job openings in suburban or wealthy urban areas. Student populations, in general, also are expected to increase significantly in several States in the West and South, resulting in increased demand for special education teachers in these regions. In addition, job opportunities may be better in certain specialties—such as speech or language impairments, and learning disabilities—because of large enrollment increases of special education students classified under these disability categories. Legislation encouraging early intervention and special education for infants, toddlers, and preschoolers has created a need for early childhood special education teachers. Special education teachers who are bilingual or have multicultural experience also are needed to work with an increasingly diverse student population.

The number of students requiring special education services has grown steadily in recent years. This trend is expected to continue. Learning disabilities will continue to be identified and diagnosed at earlier ages. In addition, medical advances have resulted in more children surviving serious accidents or illnesses, but with impairments that require special accommodations. The percentage of foreign-born special education students also is expected to grow as teachers begin to recognize learning disabilities in this population. Finally, more parents are expected to seek special services for their children if they have difficulty meeting the new, higher standards required of students.

Earnings

Median annual earnings of preschool, kindergarten, and elementary school special education teachers in 2000 were \$40,880. The middle 50 percent earned between \$32,330 and \$52,440. The lowest 10 percent earned less than \$26,640, and the highest 10 percent earned more than \$66,210.

Median annual earnings of middle school special education teachers in 2000 were \$38,600. The middle 50 percent earned between \$31,360 and \$49,150. The lowest 10 percent earned less than \$26,500, and the highest 10 percent earned more than \$61,590.

Median annual earnings of secondary school special education teachers in 2000 were \$41,290. The middle 50 percent earned between \$32,840 and \$52,860. The lowest 10 percent earned less than \$27,180, and the highest 10 percent earned more than \$67,030.

In 2000, about 57 percent of special education teachers belonged to unions—mainly the American Federation of Teachers and the National Education Association—that bargain with school systems over wages, hours, and the terms and conditions of employment.

In most schools, teachers receive extra pay for coaching sports and working with students in extracurricular activities. Some teachers earn extra income during the summer, working in the school system or in other jobs.

Related Occupations

Special education teachers work with students who have disabilities and special needs. Other occupations involved with the identification, evaluation, and development of students with disabilities include psychologists, social workers, speech-language pathologists and audiologists, counselors, teacher assistants, occupational therapists, recreational therapists, and teachers—preschool, kindergarten, elementary, middle, and secondary.

Sources of Additional Information

For information on professions related to early intervention and education for children with disabilities, a list of accredited schools,

teacher certification, financial aid information, and general information on related personnel issues—including recruitment, retention, and supply of and demand for special education professionals—contact:

- National Clearinghouse for Professions in Special Education, Council

for Exceptional Children, 1920 Association Dr., Reston, VA 20191-1589.
Internet: <http://www.special-ed-careers.org>

To learn more about the special education teacher certification and licensing requirements in your State, contact your State's department of education.

Legal Occupations

Court Reporters

(O*NET 23-2091.00)

Significant Points

- Court reporters usually need a 2- or 4- year postsecondary school degree.
- Demand for realtime and broadcast captioning and translating will result in employment growth of court reporters.
- Job opportunities should be best for those with certification from the National Court Reporters Association.

Nature of the Work

Court reporters typically take verbatim reports of speeches, conversations, legal proceedings, meetings, and other events when written accounts of spoken words are necessary for correspondence, records, or legal proof. Court reporters not only play a critical role in judicial proceedings, but every meeting where the spoken word must be preserved as a written transcript. They are responsible for ensuring a complete, accurate, and secure legal record. In addition to preparing and protecting the legal record, many court reporters assist judges and trial attorneys in a variety of ways, such as organizing and searching for information in the official record or making suggestions to judges and attorneys regarding courtroom administration and procedure. Increasingly, court reporters are providing closed-captioning and realtime translating services to the deaf and hard-of-hearing community.

Court reporters document all statements made in official proceedings using a stenotype machine, which allows them to press multiple keys at a time to record combinations of letters representing sounds, words, or phrases. These symbols are then recorded on computer disks or CD-ROM, which are then translated and displayed as text in a process called computer-aided transcription (CAT). In all cases, accuracy is crucial because there is only one person creating an official transcript. In a judicial setting, for example, appeals often depend on the court reporter's transcript.

Stenotype machines used for realtime captioning are linked directly to the computer. As the reporter keys in the symbols, they instantly appear as text on the screen. This process, called Communications Access Realtime Translation (CART), is used in courts, classrooms, meetings, and for closed captioning for the hearing-impaired on television.

Court reporters are responsible for a number of duties both before and after transcribing events. First, they must create and maintain the computer dictionary that they use to translate stenographic strokes into written text. They may customize the dictionary with word parts, words, or terminology specific to the proceeding, program, or event—such as a religious service—they plan to transcribe.

After documenting proceedings, court reporters must edit their CART translation for correct grammar, accurate identification of proper names and places, and to ensure the record or testimony is distinguishable. They usually prepare written transcripts, make copies, and provide transcript information to court, counsel, parties, and the public upon request. They also develop procedures for easy storage and retrieval of all stenographic notes and files in paper or digital format.

Although many court reporters record official proceedings in the courtroom, the majority of them work outside the courtroom. Freelance reporters, for example, take depositions for attorneys in offices and document proceedings of meetings, conventions, and other private activities. Others capture the proceedings in government agencies of all levels, from the U.S. Congress to State and



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