

elderly population, who are more likely to need services. In addition, social and human service assistants will continue to be needed to provide services to pregnant teenagers, the homeless, the mentally disabled and developmentally challenged, and those with substance-abuse problems.

Job-training programs also are expected to require additional social and human service assistants. As social welfare policies shift focus from benefit-based programs to work-based initiatives, there will be more demand for people to teach job skills to the people who are new to, or returning to, the workforce. Additionally, streamlined and downsized businesses create demand for persons with job-retraining expertise. Social and human service assistants will help companies to cope with new modes of conducting business and employees to master new job skills.

Residential care establishments should face increased pressures to respond to the needs of the chronically and mentally ill. Many of these patients have been deinstitutionalized and lack the knowledge or the ability to care for themselves. Also, more community-based programs, supported independent-living sites, and group residences are expected to be established to house and assist the homeless and the chronically and mentally ill. Because more substance abusers are being sent to treatment programs instead of to prison, employment of social and human service assistants in substance abuse programs will also grow.

The number of jobs for social and human service assistants will grow more rapidly than overall employment in State and local governments. State and local governments employ many of their social and human service assistants in corrections and public-assistance departments. Although employment in corrections departments is growing, employment of social and human service assistants is not expected to grow as rapidly as employment in other corrections jobs, such as correctional officers. Public-assistance programs have been employing more social and human service assistants in an attempt to employ fewer social workers, who are more educated, and thus more highly paid.

Earnings

Median annual earnings of social and human service assistants were \$22,330 in 2000. The middle 50 percent earned between \$17,820 and \$27,930. The top 10 percent earned more than \$35,220, while the lowest 10 percent earned less than \$14,660.

Median annual earnings in the industries employing the largest numbers of social and human service assistants in 2000 were:

State government, except education and hospitals	\$27,130
Local government, except education and hospitals	25,320
Social services, not elsewhere classified	21,820
Individual and family services	21,350
Residential care	19,880

Related Occupations

Workers in other occupations that require skills similar to those of social and human service assistants include social workers; clergy; counselors; childcare workers; occupational-therapist assistants and aides; physical-therapist assistants and aides; and nursing, psychiatric, and home-health aides.

Sources of Additional Information

Information on academic programs in human services may be found in most directories of 2- and 4-year colleges, available at libraries or career counseling centers.

For information on programs and careers in human services, contact:

- ▶ National Organization for Human Service Education, University of Rhode Island, Quinn 107-URI, Kingston, RI 02881. Internet: <http://www.nohse.com>

- ▶ Council for Standards in Human Services Education, Northern Essex Community College, 100 Elliot Way, Haverhill, MA 01830. Internet: <http://www.cshse.com>

Information on job openings may be available from State employment service offices or directly from city, county, or State departments of health, mental health and mental retardation, and human resources.

Social Workers

(O*NET 21-1021.00, 21-1022.00, 21-1023.00)

Significant Points

- While a bachelor’s degree is the minimum requirement, a master’s degree in social work or a related field has become the standard for many positions.
- Employment is projected to grow faster than average.
- Competition for jobs is expected in cities, but opportunities should be good in rural areas.

Nature of the Work

Social work is a profession for those with a strong desire to help improve people’s lives. Social workers help people function the best way they can in their environment, deal with their relationships, and solve personal and family problems.

Social workers often see clients who face a life-threatening disease or a social problem. These problems may include inadequate housing, unemployment, lack of job skills, financial distress, serious illness or disability, substance abuse, unwanted pregnancy, or anti-social behavior. Social workers also assist families that have serious domestic conflicts, including those involving child or spousal abuse.

Through direct counseling, social workers help clients identify their concerns, consider effective solutions, and find reliable resources. Social workers typically consult and counsel clients and arrange for services that can help them. Often, they refer clients to specialists in services such as debt counseling, childcare or eldercare, public assistance, or alcohol or drug rehabilitation. Social workers then follow through with the client to assure that services are helpful and that clients make proper use of the services offered. Social workers may review eligibility requirements, help fill out forms and applications, visit clients on a regular basis, and provide support during crises.

Social workers practice in a variety of settings. In hospitals and psychiatric hospitals, they provide or arrange for a range of support services. In mental health and community centers, social workers provide counseling services on marriage, family, and adoption matters, and they help people through personal or community emergencies, such as dealing with loss or grief or arranging for disaster assistance. In schools, they help children, parents, and teachers cope with problems. In social service agencies, they help people locate basic benefits, such as income assistance, housing, and job training. Social workers also offer counseling to those receiving therapy for addictive or physical disorders in rehabilitation facilities, and to people in nursing homes who are in need of routine living care. In employment settings, they counsel people with personal, family, professional, or financial problems affecting their work performance. Social workers who work in courts and correction facilities evaluate and counsel individuals in the criminal justice system to cope better in society. In private practice, they provide

clinical or diagnostic testing services covering a wide range of personal disorders. Social workers working in private practice also counsel clients with mental and emotional problems.

Social workers often provide social services in health-related settings that now are governed by managed care organizations. To contain costs, these organizations are emphasizing short-term intervention, ambulatory and community-based care, and greater decentralization of services.

Most social workers specialize. Although some conduct research or are involved in planning or policy development, most social workers prefer an area of practice in which they interact with clients.

Clinical social workers offer psychotherapy or counseling and a range of diagnostic services in public agencies, clinics, and private practice.

Child welfare or family services social workers may counsel children and youths who have difficulty adjusting socially, advise parents on how to care for disabled children, or arrange for homemaker services during a parent's illness. If children have serious problems in school, child welfare workers may consult with parents, teachers, and counselors to identify underlying causes and develop plans for treatment. Some social workers assist single parents; arrange adoptions; and help find foster homes for neglected, abandoned, or abused children. Child welfare workers also work in residential institutions for children and adolescents.

Child or adult protective services social workers investigate reports of abuse and neglect, and intervene if necessary. They may initiate legal action to remove children from homes and place them temporarily in an emergency shelter or with a foster family.

Mental health social workers provide services for persons with mental or emotional problems. Such services include individual and group therapy, outreach, crisis intervention, social rehabilitation, and training in skills of everyday living. They may also help plan for supportive services to ease patients' return to the community. (Counselors and psychologists, who may provide similar services, are discussed elsewhere in the *Handbook*.)

Healthcare social workers help patients and their families cope with chronic, acute, or terminal illnesses and handle problems that may stand in the way of recovery or rehabilitation. They may organize support groups for families of patients suffering from cancer, AIDS, Alzheimer's disease, or other illnesses. They also advise family caregivers, counsel patients, and help plan for patients' needs after discharge by arranging for at-home services—from meals-on-wheels to oxygen equipment. Some work on interdisciplinary teams that evaluate certain kinds of patients—geriatric or organ transplant patients, for example.

School social workers diagnose students' problems and arrange needed services, counsel children in trouble, and help integrate disabled students into the general school population. School social workers deal with problems such as student pregnancy, misbehavior in class, and excessive absences. They also advise teachers on how to cope with problem students.

Substance abuse social workers counsel drug and alcohol abusers as they recover from their dependencies. They also arrange for other services that may help clients find employment or get training. They generally are employed in substance abuse treatment and prevention programs.

Criminal justice social workers make recommendations to courts; prepare presentencing assessments; and provide services to prison inmates, parolees, probationers, and their families. (Probation officers and correctional treatment specialists are discussed elsewhere in the *Handbook*.)

Occupational social workers usually work in a corporation's personnel department or health unit. Through employee assistance programs, they help workers cope with job-related pressures or with



Social workers may arrange for a variety of services for their clients or provide psychological counseling to them.

personal problems that affect the quality of their work. They often offer direct counseling to employees whose performance is hindered by emotional or family problems or substance abuse. They also develop education programs and refer workers to specialized community programs.

Gerontology social workers specialize in services for senior citizens. They run support groups for family caregivers or for the adult children of aging parents. Also, they advise elderly people or family members about the choices in such areas as housing, transportation, and long-term care; they also coordinate and monitor services.

Social work administrators perform overall management tasks in a hospital, clinic, or other setting that offers social worker services.

Social work planners and policy makers develop programs to address such issues as child abuse, homelessness, substance abuse, poverty, and violence. These workers research and analyze policies, programs, and regulations. They identify social problems and suggest legislative and other solutions. They may help raise funds or write grants to support these programs.

Working Conditions

Full-time social workers usually work a standard 40-hour week; however, some occasionally work evenings and weekends to meet with clients, attend community meetings, and handle emergencies. Some, particularly in voluntary nonprofit agencies, work part time. Social workers usually spend most of their time in an office or residential facility, but also may travel locally to visit clients, meet with service providers, or attend meetings. Some may use one of several offices within a local area in which to meet with clients. The work, while satisfying, can be emotionally draining. Understaffing and large caseloads add to the pressure in some agencies.

Employment

Social workers held about 468,000 jobs in 2000. About 1 out of 3 jobs were in State, county, or municipal government agencies, primarily in departments of health and human services, mental health, social services, child welfare, housing, education, and corrections. Most private sector jobs were in social service agencies, hospitals, nursing homes, home health agencies, and other health centers or clinics. Although most social workers are employed in cities or suburbs, some work in rural areas. The following tabulation shows 2000 employment by type of social worker.

Child, family, and school social workers	281,000
Medical and public health social workers	104,000
Mental health and substance abuse social workers	83,000

Training, Other Qualifications, and Advancement

A bachelor's degree in social work (BSW) degree is the most common minimum requirement to qualify for a job as a social worker; however, majors in psychology, sociology, and related fields may be sufficient to qualify for some entry-level jobs, especially in small community agencies. Although a bachelor's degree is required for entry into the field, an advanced degree has become the standard for many positions. A master's degree in social work (MSW) is necessary for positions in health and mental health settings and typically is required for certification for clinical work. Jobs in public agencies also may require an advanced degree, such as a master's degree in social service policy or administration. Supervisory, administrative, and staff training positions usually require an advanced degree. College and university teaching positions and most research appointments normally require a doctorate in social work (DSW or PhD).

As of 2000, the Council on Social Work Education (CSWE) accredited 421 BSW programs and 139 MSW programs. The Group for the Advancement of Doctoral Education (GADE) listed 71 doctoral programs for PhD's in social work or DSW's (Doctor of Social Work). BSW programs prepare graduates for direct service positions such as caseworker or groupworker. They include courses in social work practice, social welfare policies, human behavior and the social environment, social research methods, social work values and ethics, dealing with a culturally diverse clientele, promotion of social and economic justice, and populations-at-risk. Accredited BSW programs require at least 400 hours of supervised field experience.

Master's degree programs prepare graduates for work in their chosen field of concentration and continue to develop their skills to perform clinical assessments, manage large caseloads, and explore new ways of drawing upon social services to meet the needs of clients. Master's programs last 2 years and include 900 hours of supervised field instruction, or internship. A part-time program may take 4 years. Entry into a master's program does not require a bachelor's in social work, but courses in psychology, biology, sociology, economics, political science, history, social anthropology, urban studies, and social work are recommended. In addition, a second language can be very helpful. Most master's programs offer advanced standing for those with a bachelor's degree from an accredited social work program.

All States and the District of Columbia have licensing, certification, or registration requirements regarding social work practice and the use of professional titles. Although standards for licensing vary by State, a growing number of States are placing greater emphasis on communications skills, professional ethics, and sensitivity for cultural diversity issues. Additionally, the National Association of Social Workers (NASW) offers voluntary credentials. The Academy of Certified Social Workers (ACSW) is granted to all social workers who have met established eligibility criteria. Clinical social workers may earn either the Qualified Clinical Social Worker (QCSW) credential or the advanced credential—Diplomate in Clinical Social Work (DCSW). Social workers holding clinical credentials also may list themselves in the biannual publication of the *NASW Register of Clinical Social Workers*. Credentials are particularly important for those in private practice; some health insurance providers require them for reimbursement.

Social workers should be emotionally mature, objective, and sensitive to people and their problems. They must be able to handle responsibility, work independently, and maintain good working relationships with clients and coworkers. Volunteer or paid jobs as a social work aide offer ways of testing one's interest in this field.

Advancement to supervisor, program manager, assistant director, or executive director of a social service agency or department is possible, but usually requires an advanced degree and related work experience. Other career options for social workers include teaching, research, and consulting. Some also help formulate government policies by analyzing and advocating policy positions in government agencies, in research institutions, and on legislators' staffs.

Some social workers go into private practice. Most private practitioners are clinical social workers who provide psychotherapy, usually paid through health insurance. Private practitioners usually have at least a master's degree and a period of supervised work experience. A network of contacts for referrals also is essential.

Job Outlook

Competition for social worker jobs is stronger in cities where demand for services often is highest, training programs for social workers are prevalent, and interest in available positions is strongest. However, opportunities should be good in rural areas, which often find it difficult to attract and retain qualified staff.

Employment of social workers is expected to increase faster than the average for all occupations through 2010. The elderly population is increasing rapidly, creating greater demand for health and social services, resulting in particularly rapid job growth among gerontology social workers. Social workers also will be needed to help the large baby-boom generation deal with depression and mental health concerns stemming from mid-life, career, or other personal and professional difficulties. In addition, continuing concern about crime, juvenile delinquency, and services for the mentally ill, the mentally retarded, the physically disabled, AIDS patients, and individuals and families in crisis will spur demand for social workers. Many job openings also will stem from the need to replace social workers who leave the occupation.

The number of social workers in hospitals and long-term care facilities will increase in response to the need to provide medical and social services for clients who leave the facility. However, this need will be shared across several occupations. In an effort to control costs, these facilities increasingly emphasize discharging patients early, applying an interdisciplinary approach to patient care, and employing a broader mix of occupations—including clinical specialists, registered nurses, and health aides—to tend to patient care or client needs.

Social worker employment in home healthcare services is growing, in part because hospitals are releasing patients earlier than in the past. However, the expanding senior population is an even larger factor. Social workers with backgrounds in gerontology are finding work in the growing numbers of assisted-living and senior-living communities.

Employment of social workers in private social service agencies also will grow. However, agencies increasingly will restructure services and hire more lower-paid social and human service assistants instead of social workers. Employment in State and local government may grow somewhat in response to increasing needs for public welfare and family services; however, many of these services will be contracted out to private agencies. Employment in child protection services will grow due to increased concern over the safety of children. Employment levels may fluctuate depending on need and government funding for various social service programs.

Employment of substance abuse social workers also will continue to grow over the projection period. Substance abusers are increasingly being placed into treatment programs instead of being sentenced to prison. As this trend grows, demand will increase for treatment programs and social workers to assist abusers on the road to recovery.

Employment of school social workers is expected to grow due to expanded efforts to respond to rising student enrollments. Moreover, continued emphasis on integrating disabled children into the general school population will lead to more jobs. However, availability of State and local funding will dictate the actual job growth in schools.

Opportunities for social workers in private practice will expand, but this growth will be inhibited to a certain degree by funding cutbacks and by restrictions that managed care organizations place on services. The growing popularity of employee assistance programs also is expected to spur some demand for private practitioners, some of whom provide social work services to corporations on a contractual basis.

Earnings

Median annual earnings of child, family, and school social workers were \$31,470 in 2000. The middle 50 percent earned between \$24,910 and \$40,170. The lowest 10 percent earned less than \$20,120, and the top 10 percent earned more than \$50,280. Median annual earnings in the industries employing the largest numbers of child, family, and school social workers in 2000 were:

Elementary and secondary schools	\$41,700
Local government, except education and hospitals	35,780
State government, except education and hospitals	32,860
Individual and family services	27,170
Residential care	26,780

Median annual earnings of medical and public health social workers were \$34,790 in 2000. The middle 50 percent earned between \$27,800 and \$43,450. The lowest 10 percent earned less than \$22,490, and the top 10 percent earned more than \$53,160. Median annual earnings in the industries employing the largest numbers of medical and public health social workers in 2000 were:

Hospitals	\$40,020
Health and allied services, not elsewhere classified	36,230
Local government, except education and hospitals	35,300
Nursing and personal care facilities	31,580
Individual and family services	29,730

Median annual earnings of mental health and substance abuse social workers were \$30,170 in 2000. The middle 50 percent earned between \$23,840 and \$39,190. The lowest 10 percent earned less than \$19,300, and the top 10 percent earned more than \$48,750. Median annual earnings in the industries employing the largest numbers of mental health and substance abuse social workers in 2000 were:

Local government, except education and hospitals	\$33,950
Hospitals	33,150
Health and allied services, not elsewhere classified	28,270
Individual and family services	28,160
Residential care	26,620

Related Occupations

Through direct counseling or referral to other services, social workers help people solve a range of personal problems. Workers in occupations with similar duties include the clergy, counselors, psychologists, and social and human service assistants.

Sources of Additional Information

For information about career opportunities in social work and voluntary credentials for social workers, contact:

► National Association of Social Workers, 750 First St. NE., Suite 700, Washington, DC 20002-4241. Internet: <http://www.naswdc.org>

For a listing of accredited social work programs or to order a *Directory of Colleges and Universities with Accredited Social Work Degree Programs* for a nominal charge, contact:

► Council on Social Work Education, 1725 Duke St., Suite 500, Alexandria, VA 22314-3457. Internet: <http://www.cswe.org>

Information on licensing requirements and testing procedures for each State may be obtained from State licensing authorities, or from:

► Association of Social Work Boards, 400 South Ridge Pkwy., Suite B, Culpeper, VA 22701. Internet: <http://www.aswb.org>

Computer and Mathematical Occupations

Actuaries

(O*NET 15-2011.00)

Significant Points

- A strong background in mathematics is essential.
- About 7 out of 10 actuaries are employed in the insurance industry.
- This small occupation generates relatively few job openings; the fastest employment growth is expected in the computer and data processing services, health services, and management and actuarial consulting industries.

Nature of the Work

Actuaries are essential employees because they determine future risk, make price decisions, and formulate investment strategies. Some actuaries also design insurance, financial, and pension plans

and ensure that these plans are maintained on a sound financial basis. Most actuaries specialize in life and health or property and casualty insurance; others work primarily in finance or employee benefits. Some use a broad knowledge of business and mathematics in investment, risk classification, or pension planning.

Regardless of specialty, actuaries assemble and analyze data to estimate probabilities of an event taking place, such as death, sickness, injury, disability, or property loss. They also address financial questions, including those involving the level of pension contributions required to produce a certain retirement income level or how a company should invest resources to maximize return on investment in light of potential risk. Moreover, actuaries may help determine company policy and sometimes explain complex technical matters to company executives, government officials, shareholders, policyholders, or the public in general. They may testify before public agencies on proposed legislation affecting their businesses or explain changes in contract provisions to customers. They also may help companies develop plans to enter new lines of business or new geographic markets with existing lines of business by forecasting demand in competitive settings.