

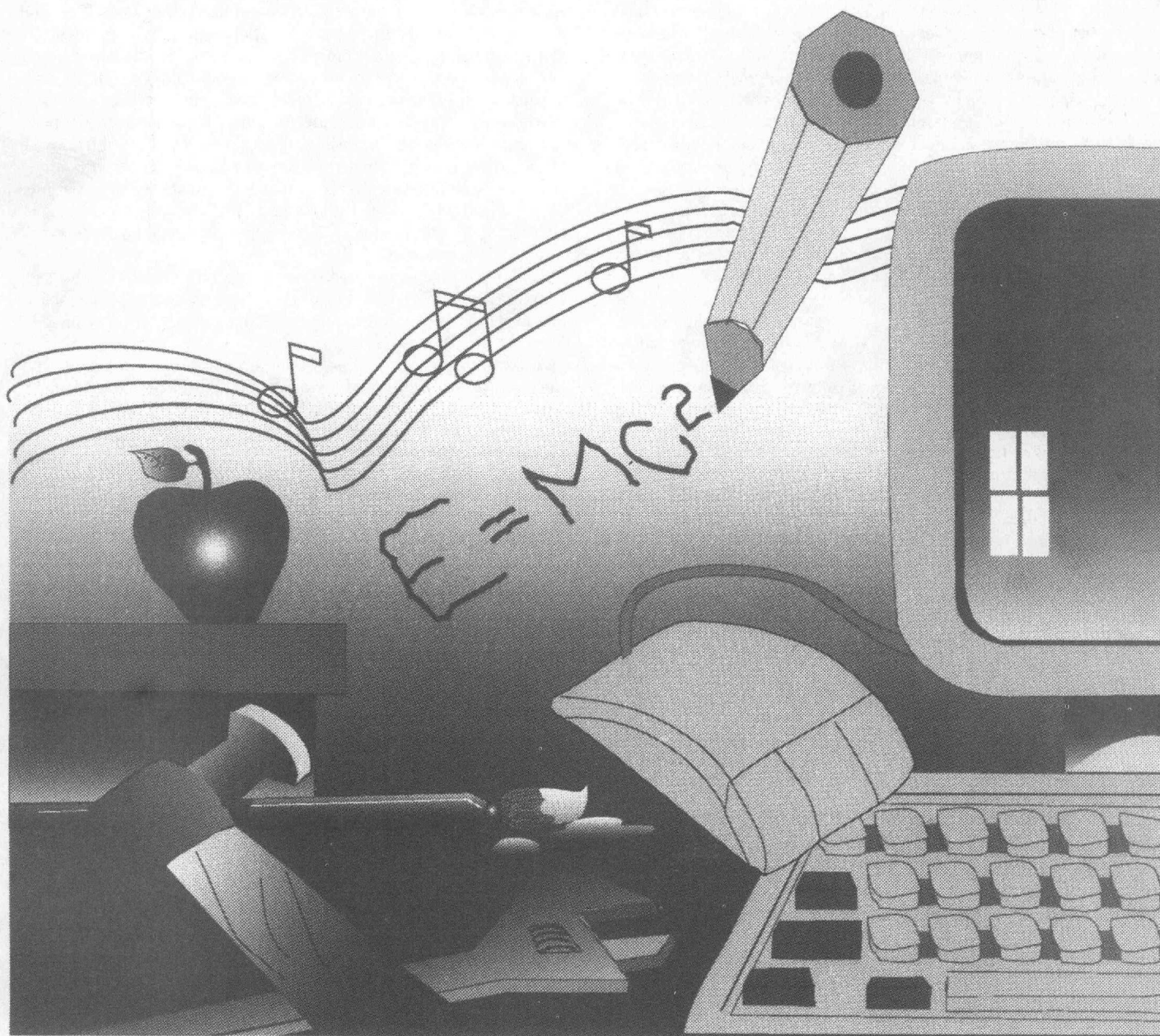
# Social Scientists and Legal Occupations



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# Social Scientists and Urban Planners

## Nature of the Work

Social scientists study all aspects of human society—from the distribution of products and services to newly formed religious groups or plans for modern mass transportation systems. Social science research provides insights that help us understand the many different ways in which individuals and groups make decisions, exercise power, or respond to change. Through their studies and analyses, social scientists and urban planners assist educators, government officials, business leaders, and others in solving social, economic, and environmental problems.

Research is a basic activity for many social scientists. They use established or newly discovered methods to assemble facts and theory that contribute to human knowledge. Applied research usually is designed to produce information that will enable people to make better decisions or manage their affairs more effectively. Interviews and surveys are widely used to collect facts, opinions, or other information. Data collection takes many other forms, however, including living and working among the people studied; archaeological and other field investigations; the analysis of historical records and documents; experiments with human subjects or animals in a psychological laboratory; the administration of standardized tests and questionnaires; and the preparation and interpretation of maps and graphic materials.

Social sciences are interdisciplinary in nature. Specialists in one field often find that the research they are performing overlaps work that is being conducted in another social science discipline. Regardless of their field of specialization, social scientists are concerned with some aspect of society, culture, or personality.

*Anthropologists* seek to discover principles of human behavior that are applicable to all communities. They study the way of life, remains, language, and physical characteristics of people in all parts of the world; they compare the customs, values, and social patterns of different cultures. Anthropologists generally concentrate in one of four subfields: Sociocultural anthropology, archaeology, linguistics, or biological-physical anthropology. Most anthropologists specialize in sociocultural anthropology, studying the customs, cultures, and social lives of groups in a wide range of settings from nonindustrialized societies to modern urban cultures. Archaeologists study the remains and artifacts of earlier cultures to determine their history, customs, and living habits. Linguistic anthropologists study the role of language in various cultures. Biological-physical anthropologists study the evolution of the human body and look for the earliest evidences of human life.

*Economists and marketing research analysts*, who account for nearly 1 out of 6 social scientists, study the way we allocate our resources to produce a wide variety of goods and services. They conduct surveys and analyze data to determine public preferences for these goods and services. Most economists are concerned with the practical applications of economic policy in a particular area, such as finance, labor, agriculture, transportation, energy, or health. Others develop theories to explain economic phenomena such as unemployment or inflation.

*Geographers* study the distribution of both physical and cultural phenomena at local, regional, continental, and global scales. Geographers specialize, as a rule. Economic geographers study the areal distribution of resources and economic activities. Political geographers are concerned with the relationship of geography to political phenomena—local, national, and international. Physical geographers study the distribution of climates, vegetation, soil, and land forms. Urban and transportation geographers study cities and metropolitan areas, while regional geographers study the physical, climatic, economic, political, and cultural characteristics of regions, ranging in size from a congressional district, to a State, country, continent, or the entire world. Medical geographers study health care delivery systems, epidemiology, and the effect of the environment on health. Geographic

Information Systems (GIS)—a relatively new specialty—combines computer graphics, artificial intelligence, and high-speed communication to store, retrieve, manipulate, analyze, and map geographic data. GIS is used in many specialties, including weather forecasting, emergency management, and resource analysis and management. (Some occupational classification systems include geographers under physical scientists rather than social scientists.)

*Historians* research and analyze the past. Historians usually specialize in a specific country or region; in a particular time period; or in a particular field, such as social, intellectual, political, or diplomatic history. Biographers collect detailed information on individuals. Genealogists trace family histories. Other historians help study and preserve archives, artifacts, and historic buildings and sites.

*Political scientists* investigate the ways in which political power is organized, distributed, and used. They study a wide range of subjects such as Soviet-American relations, the beliefs and institutions of nations in Asia and Africa, the politics of a New England town or a major metropolis, and the decisions of the U.S. Supreme Court. Studying topics such as public opinion, political decisionmaking, and ideology, they analyze the structure and operation of governments as well as informal political entities. Depending on the topic under study, a political scientist might conduct a public opinion survey, analyze election results, or analyze public documents.

*Psychologists*, who constitute over half of all social scientists, study human behavior and use their expertise to counsel or advise individuals or groups. Their research also assists advertisers, politicians, and others interested in influencing or motivating people. While clinical psychology is the largest specialty, psychologists specialize in many other fields such as counseling, experimental, social, or industrial psychology.

*Sociologists* analyze the behavior of groups or social systems such as families, neighborhoods, or clubs. Sociologists may specialize in a particular field such as criminology, rural sociology, or medical sociology.

*Urban and regional planners* develop comprehensive plans and programs for the use of land for industrial and public sites. Planners prepare for situations that are likely to develop as a result of population growth or social and economic change.

## Working Conditions

Most social scientists have regular hours. While working alone behind a desk, they read and write research reports. Many experience the pressures of deadlines and tight schedules, and sometimes must work overtime. Social scientists often work as an integral part of a research team. Their routine may be interrupted by telephone calls, letters to answer, special requests for information, meetings, or conferences. Travel may be necessary to collect information or attend meetings. Social scientists on foreign assignment must adjust to unfamiliar cultures and climates.

Some social scientists do fieldwork. For example, anthropologists, archaeologists, and geographers often must travel to remote areas to live among the people they study or stay for long periods at the site of their investigations. They may work under primitive conditions, and their work may involve digging, lifting, and carrying heavy objects.

## Employment

Social scientists held about 224,000 jobs in 1990. They worked for a wide range of employers, including government agencies; research organizations and consulting firms; international organizations; associations; museums; historical societies; securities and commodities dealers; social service agencies; hospitals and other health facilities; and business firms.

About 3 out of 10 social scientists are self-employed and involved in counseling, consulting, research, and related activities. In addition,



many persons with graduate training, usually a doctoral degree, in a social science discipline are employed by colleges and universities, where they characteristically combine teaching with research and consulting. (For more information, see the *Handbook* statement on college and university faculty.) As a source of employment, the academic world is more important for graduates in anthropology, sociology, or political science than for graduates in urban and regional planning or psychology.

### Training, Other Qualifications, and Advancement

Educational attainment among social scientists is significantly higher than for most other occupations. The Ph.D. or equivalent degree is a minimum requirement for most positions in colleges and universities and is important for advancement to many top-level nonacademic research and administrative posts. Graduates with master's degrees generally have better professional opportunities outside of colleges and universities, although the situation varies by field. For example, job prospects for master's degree holders in urban and regional planning are brighter than for master's degree holders in sociology. Graduates with a master's degree in a social science discipline qualify for teaching positions in junior colleges. Bachelor's degree holders have very limited opportunities and in most social science occupations do not qualify for "professional" positions. The bachelor's degree does, however, provide a suitable background for many different kinds of "junior professional" jobs, such as research assistant, administrative aide, or management trainee.

Training in statistics and mathematics is essential for most social scientists. Mathematical and other quantitative research methods are increasingly used in economics, geography, political science, experimental psychology, and other fields. The ability to use computers for research purposes is a "must" in many disciplines.

Depending on their jobs, social scientists and urban planners may need a wide range of personal characteristics. Because they constantly seek new information about people, things, and ideas, intellectual curiosity and creativity are two fundamental personal traits. The ability to think logically and methodically is important to a political scientist comparing the merits of various forms of government. The ability to analyze data is important to an economist studying proposals to reduce Federal budget deficits. Objectivity, openmindedness, and systematic work habits are important in all kinds of social science research. Perseverance is essential for an anthropologist, who might spend years accumulating artifacts from an ancient civilization. Emotional stability and sensitivity are vital to a clinical psychologist working with mental patients. And, of course, written and oral communication skills are essential to all these workers.

### Job Outlook

Employment of social scientists is expected to grow much faster than the average for all occupations through the year 2005, spurred primarily by rapid growth among psychologists—the largest social science occupation. Economists and marketing research analysts and urban and regional planners should experience average growth, while all other social scientists combined, including anthropologists, geographers, historians, political scientists, and sociologists, will experience slower than average growth. Most job openings will result from the need to replace social scientists who transfer to other occupations or stop working altogether.

Opportunities are best for those with advanced degrees. Social scientists currently face competition for academic positions. However, competition may ease in the future due to the wave of retirements expected among college and university faculty.

Prospects are generally better in disciplines such as economics, psychology, and urban and regional planning, which offer many opportunities in nonacademic settings. However, graduates in all other social science fields are expected to find enhanced job opportunities in applied fields due to the excellent research, organizational, and quantitative skills they develop in school. Many graduates find employment in associations, financial institutions, health organizations, research firms, and government agencies. The growing number of historical societies has renewed demand for historians as curators, directors, and archivists. Rising concern over environmental and eco-

logical issues is spurring demand for geographers, anthropologists, archaeologists, and other social scientists. Increasing emphasis on international competition is creating demand for anthropologists and archaeologists to study and evaluate cultural diversities. Rising importance of social science subjects in secondary schools is strengthening the demand for social science teachers at this level. (For additional information, see the statement on secondary school teachers elsewhere in the *Handbook*.)

Other considerations that affect employment opportunities in these occupations include specific skills and technical expertise; desired work setting; salary requirements; and geographic mobility. In addition, experience acquired through internships can prove invaluable later in obtaining a full-time position in a social science field.

### Earnings

Median annual earnings of all social scientists were about \$31,400 in 1990. The middle 50 percent earned between \$22,000 and \$51,800 annually. The lowest 10 percent earned under \$16,200, while the highest 10 percent earned over \$67,800.

According to the College Placement Council, persons with a bachelor's degree in a social science field received starting offers averaging about \$24,200 a year in 1990.

According to a 1989 National Science Foundation survey, the median annual salary of doctoral social scientists was \$50,400.

In the Federal Government, social scientists with a bachelor's degree and no experience could start at \$17,000 or \$21,000 a year in 1991, depending on their college records. Those with a master's degree could start at \$25,700, and those having a Ph.D. degree could begin at \$31,100, while some individuals could start at \$37,300. The average salary of all social scientists working for the Federal Government in 1991 was about \$46,200.

Like many professional occupations, social scientists often receive a fringe benefit package which includes vacation and sick leave, health and life insurance, and pension plans. For those entering academic careers, benefits may include summer research money, computer access, housing, and secretarial support.

### Related Occupations

A number of fields that require training and personal qualities similar to those of the various social science fields are covered elsewhere in the *Handbook*. These include lawyers, statisticians, mathematicians, computer programmers, computer systems analysts, reporters and correspondents, social workers, religious workers, college and university faculty, and counselors.

### Sources of Additional Information

More detailed information about economists and marketing research analysts, psychologists, sociologists, and urban and regional planners is presented in the *Handbook* statements that follow this introductory statement.

#### Anthropology

For information about careers, job openings, grants and fellowships, and schools that offer training in anthropology, and for a copy of *Getting a Job Outside the Academy* (special publication no. 14), contact:

• The American Anthropological Association, 1703 New Hampshire Ave. NW., Washington, DC 20009.

#### Archaeology

For information about careers in archaeology, contact:

• Society for American Archaeology, 808 17th St. NW., Suite 200, Washington, DC 20006.

• Archaeological Institute of America, 675 Commonwealth Ave., Boston, MA 02215.

#### Geography

Two pamphlets that provide information on careers and job openings for geographers—*Geography-Today's Career for Tomorrow* and *Careers in Geography*—and the annual publication listing schools offering various programs in geography—*A Guide to Programs of Geography in the U.S. and Canada*—may be obtained from:

• Association of American Geographers, 1710 16th St. NW., Washington, DC 20009.

#### History

Information on careers and job openings for historians is available from:

- American Historical Association, 400 A St. SE., Washington, DC 20003.  
General information on careers for historians is available from:
- Organization of American Historians, 112 North Bryan St., Bloomington, IN 47408.

For additional information on careers for historians, send a self-addressed, stamped envelope to:

- American Association for State and Local History, 172 Second Ave. N., Suite 200, Nashville, TN 37201.

#### Political Science

Information on careers and job openings, including *Careers and the Study of Political Science: A Guide for Undergraduates*, which is available for \$2, with bulk rates for multiple copies, may be purchased from:

- American Political Science Association, 1527 New Hampshire Ave. NW., Washington, DC 20036.

*Programs in Public Affairs and Administration*, a biennial directory that contains data on the academic content of programs, the student body, the format of instruction, and other information, may be purchased from:

- National Association of Schools of Public Affairs and Administration, 1120 G St. NW., Suite 520, Washington, DC 20005.

## Economists and Marketing Research Analysts

(D.O.T. 050.067)

### Nature of the Work

**Economists.** Economists study the ways a society uses scarce resources such as land, labor, raw materials, and machinery to produce goods and services. They analyze the costs and benefits of distributing and consuming these goods and services. Economists conduct research, collect and analyze data, monitor economic trends, and develop forecasts. Their research might focus on topics such as energy costs, inflation, interest rates, farm prices, rents, imports, or employment.

Most economists are concerned with practical applications of economic policy in a particular area, such as finance, labor, agriculture, transportation, real estate, energy, or health. They use their understanding of economic relationships to advise business firms, insurance companies, banks, securities firms, industry associations, labor unions, government agencies, and others. On the other hand, economists who are primarily theoreticians may use mathematical models to develop theories on the causes of business cycles and inflation or the effects of unemployment and tax policy.

Depending on the topic under study, economists devise methods and procedures for obtaining the data they need. For example, sampling techniques may be used to conduct a survey, and econometric modeling techniques may be used to develop projections. Preparing reports usually is an important part of the economist's job. He or she may be called upon to review and analyze all the relevant data, prepare tables and charts, and write up the results in clear, concise language. Being able to present economic and statistical concepts in a meaningful way is particularly important for economists whose research is policy directed.

Economists who work for government agencies assess economic conditions in the United States and abroad and estimate the economic impact of specific changes in legislation or public policy. For example, they may study how the dollar's fluctuation against foreign currencies affects import and export markets. Most government economists are in the fields of agriculture, business, finance, labor, transportation, utilities, urban economics, or international trade. Economists in the U.S. Department of Commerce study domestic production, distribution, and consumption of commodities or services; those in the Federal Trade Commission prepare industry analyses to assist in enforcing Federal statutes designed to eliminate unfair, deceptive, or monopolistic practices

in interstate commerce; and those in the Bureau of Labor Statistics analyze data on prices, wages, employment, productivity, and safety and health, among other things.

**Marketing Research Analysts.** Marketing research analysts are concerned with the design, promotion, price, and distribution of a product or service. They provide information which is used to identify and define marketing opportunities; generate, refine, and evaluate marketing actions; and monitor marketing performance. Like economists, marketing research analysts devise methods and procedures for obtaining data they need. Marketing research analysts often design surveys and questionnaires; conduct telephone, personal, or mail interviews; and sometimes offer product samples to assess consumer preferences and indicate current trends. Once the data are compiled, marketing research analysts code, tabulate, and evaluate the data. They then make recommendations to management based upon their findings and suggest a course of action. They may provide management with information to make decisions on the promotion, distribution, design, and pricing of company products or services; or to determine the advisability of adding new lines of merchandise, opening new branches, or diversifying the company's operations.

Marketing research analysts employed by large organizations often work with statisticians who help them select a group of people to be interviewed who will accurately represent the prospective customers. Under an experienced marketing research analyst's direction, trained interviewers conduct surveys and office workers tabulate the results.

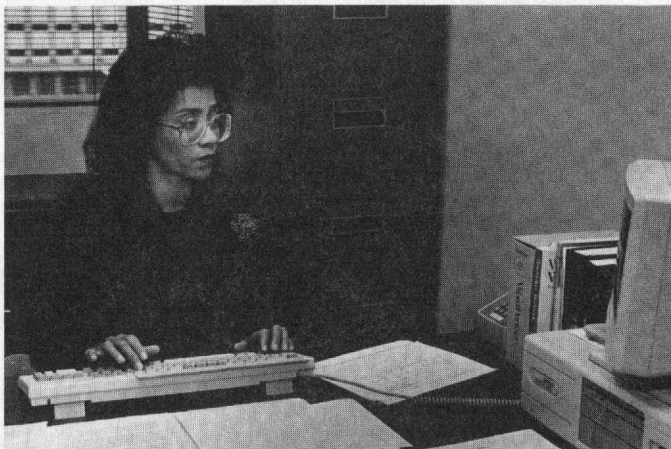
### Working Conditions

Economists and marketing research analysts working for government agencies and private firms have structured work schedules. They may work alone writing reports, preparing statistical charts, and using computers and calculators. Or they may be an integral part of a research team. Most work under pressure of deadlines and tight schedules, and sometimes must work overtime. Their routine may be interrupted by special requests for data, letters, meetings, or conferences. Travel may be necessary to collect data or attend conferences.

Economics and marketing faculty have flexible work schedules, dividing their time among teaching, research, consulting, and administrative responsibilities.

### Employment

Economists and marketing research analysts held about 37,000 jobs in 1990. Private industry—particularly economic and marketing research firms, management consulting firms, banks, and securities, investment, and insurance companies—employed over half of all salaried workers. The remainder, primarily economists, were employed by a wide range of government agencies, primarily in the Federal Government. The Departments of State, Labor, Agriculture, and Commerce are the largest Federal employers of economists. A



Economists and marketing research analysts use sampling and econometric modeling techniques.



number of economists and marketing research analysts combine a full-time job in government or business with part-time or consulting work in another setting.

Employment of economists and marketing research analysts is concentrated in large cities—for example, New York City, Washington, D.C., and Chicago. Some economists work abroad for companies with major international operations; for the Department of State and other U.S. Government agencies; and for international organizations, including the World Bank and the United Nations.

Besides the jobs described above, many economists and marketing research analysts held economics and marketing faculty positions in colleges and universities. (For information about this occupation, see the statement on college and university faculty elsewhere in the *Handbook*.)

### **Training, Other Qualifications, and Advancement**

A bachelor's degree with a major in economics or marketing is sufficient for many beginning research, administrative, management trainee, and sales jobs. A strong economics background is recommended. Students can choose from a variety of economics courses, ranging from microeconomics and macroeconomics, to history of economic thought or mathematical economics. For marketing majors, courses in business, marketing, and consumer behavior are recommended. Courses in related disciplines, such as political science, psychology, organizational behavior, sociology, finance, business law, and international relations, are suggested. Because of the importance of quantitative skills to economists and marketing researchers, courses in calculus, linear algebra, statistics, sampling theory and survey design, and computer science are highly recommended.

Aspiring marketing research analysts should gain experience conducting interviews or surveys while in college. This experience can prove invaluable later in obtaining a full-time position in the field since much of their work in the beginning centers around conducting interviews and writing reports on findings. Beginning analysts also do considerable clerical work such as copying data, editing and coding questions, and tabulating survey results. With further experience, marketing research analysts are eventually assigned their own research projects.

Graduate training increasingly is required for most economist and some marketing research analyst jobs and for advancement to more responsible positions. There are many areas of specialization at the graduate level for economists, including advanced economic theory, mathematical economics, econometrics, history of economic thought, international economics, and comparative economic systems and planning. Students should select graduate schools strong in specialties in which they are interested. Marketing research analysts may earn a master's degree in business administration, marketing, statistics, or some related discipline. Some schools help graduate students find internships or part-time employment in government agencies, economic consulting firms, financial institutions, or marketing research firms. Work experience and contacts can be useful in testing career preferences and learning about the job market for economists and marketing research analysts.

In the Federal Government, candidates for beginning economist positions generally need a college degree with a minimum of 21 semester hours of economics and 3 hours of statistics, accounting, or calculus. However, because competition is keen, additional education or experience may be required.

For a job as a college instructor in many junior colleges and small 4-year schools, a master's degree generally is the minimum requirement. In some colleges and universities, however, a Ph.D. is necessary for appointment as an instructor. The Ph.D. and extensive publication are required for a professorship and for tenure.

In government, industry, research organizations, and consulting firms, economists and marketing research analysts who have a graduate degree usually can qualify for more responsible research and administrative positions. A Ph.D. is necessary for top positions in many organizations. Many corporation and government executives have a strong background in economics or marketing.

Persons considering careers as economists or marketing research analysts should be able to work accurately with detail since much

time is spent on data analysis. Patience and persistence are necessary qualities for economists and marketing research analysts since they may spend long hours on independent study and problem solving. At the same time, they must be able to work well with others. Economists and marketing research analysts must be objective and systematic in their work and be able to present their findings, both orally and in writing, in a clear, meaningful way. Creativity and intellectual curiosity are essential for success in these fields, just as they are in other areas of scientific endeavor.

### **Job Outlook**

Employment of economists and marketing research analysts is expected to grow about as fast as the average for all occupations through the year 2005. Most job openings, however, will result from the need to replace experienced workers who transfer to other occupations, or retire or leave the labor force for other reasons.

Opportunities for economists should be best in financial services, research organizations, and consulting firms, reflecting the complexity of the domestic and international economies and increased reliance on quantitative methods of analyzing business trends, forecasting sales, and planning of purchasing and production. The continued need for economic analyses by lawyers, accountants, engineers, health services administrators, urban and regional planners, environmental scientists, and others also will increase the number of jobs for economists. Other employment opportunities for economists exist in nonprofit organizations and trade associations. Little or no change is expected in the employment of economists in the Federal Government—in line with the rate of growth projected for the Federal workforce as a whole. Employment of economists in State and local government is expected to grow about as fast as the average.

A strong background in economic theory, calculus, statistics, and econometrics provides the tools for acquiring any specialty within the field. Those skilled in quantitative techniques and their application to economic modeling and forecasting and marketing research, including the use of computers, should have the best job opportunities.

Persons who graduate with a bachelor's degree in economics through the year 2005 should face very keen competition for the limited number of economist positions for which they qualify. Related work experience—conducting research, developing surveys, or analyzing data, for example—while in school is a major asset in this competitive job market. Many graduates will find employment in government, industry, and business as management or sales trainees, or as research or administrative assistants. Those with strong backgrounds in mathematics, statistics, survey design, and computer science may be hired by private firms for marketing research work. Those who meet State certification requirements may become high school economics teachers. The demand for secondary school economics teachers is expected to grow as more States make economics a required course. (For additional information, see the statement on secondary school teachers elsewhere in the *Handbook*.)

Candidates who hold a master's degree in economics have better employment prospects than bachelor's degree holders. They face competition for teaching positions in colleges and universities; however, some may gain positions in junior and community colleges. Those with a strong background in marketing and finance may have the best prospects in business, banking, and management consulting firms.

Opportunities will be best for Ph.D.'s. Employment prospects for economists in colleges and universities should improve due to an expected wave of retirements among college faculty. Ph.D. graduates should also have favorable opportunities to work as economists in government, industry, educational and research organizations, and consulting firms.

Demand for marketing research analysts should be strong due to increasing competition in business and industry. Marketing research provides organizations valuable feedback from purchasers, allowing companies to evaluate consumer satisfaction and more effectively plan for the future. As companies seek to expand their market and consumers become better informed, the need for marketing professionals is increasing. Opportunities for marketing research analysts

should be good in a wide range of employment settings, particularly in marketing research firms, as companies find it more profitable to contract out for marketing research services rather than having their own marketing department. Other employment opportunities exist in financial organizations, health care institutions, and insurance companies. Like economists, graduates with related work experience or an advanced degree in marketing or a closely related business field should have the best job opportunities.

### Earnings

Median annual earnings of full-time economists and marketing research analysts were about \$35,800 in 1990. The middle 50 percent earned between \$26,200 and \$51,800. The lowest 10 percent earned under \$18,800, while the top 10 percent earned over \$67,800.

According to a 1990 salary survey by the College Placement Council, persons with a bachelor's degree in economics received offers averaging \$25,200 a year; in marketing, \$23,500.

The median base salary of business economists in 1990 was \$60,000, according to a survey by the National Association of Business Economists. Ninety percent of the respondents held advanced degrees. The highest salaries were reported by those who had a Ph.D., with a median salary of \$67,500. Master's degree holders earned a median salary of \$54,000, while bachelor's degree holders earned \$41,700. Over half of those responding also had income from secondary employment. The highest paid business economists were in the securities and investment, nondurable manufacturing, banking, real estate, and consulting industries. The lowest paid were in academia and government.

The Federal Government recognizes education and experience in certifying applicants for entry level positions. In general, the entrance salary for economists having a bachelor's degree averaged about \$17,000 a year in 1991; however, those with superior academic records could begin at \$21,000. Those having a master's degree could qualify for positions at an annual salary of \$25,700. Those with a Ph.D. could begin at \$31,100, while some individuals with experience could start at \$37,300. Economists in the Federal Government averaged around \$50,100 a year in 1991.

As in many other professional occupations, economists and marketing research analysts often receive a basic benefit package which includes vacation and sick leave, health and life insurance, and a pension plan. For those entering academic careers, benefits may include summer research money, computer access, housing, and secretarial support.

### Related Occupations

Economists are concerned with understanding and interpreting financial matters, among other subjects. Others with jobs in this area include financial managers, financial analysts, accountants and auditors, underwriters, actuaries, securities and financial services sales workers, credit analysts, loan officers, and budget officers.

Marketing research analysts are involved in social research, including the planning, implementation, and analysis of surveys to determine people's needs and preferences. Other jobs using these skills include social welfare research workers, employment research and planning directors, sociologists, and urban and regional planners.

### Sources of Additional Information

For information on careers in business economics, contact:

• National Association of Business Economists, 28790 Chagrin Blvd., Suite 300, Cleveland, OH 44122.

For information about careers and salaries in marketing research, contact:

• American Marketing Association, 250 South Wacker Dr., Suite 200, Chicago, IL 60606.

• Marketing Research Association, 2189 Silas Deane Hwy., Suite 5, Rocky Hill, CT 06067.

For information about careers in noncollegiate academic institutions, contact:

• Joint Council on Economic Education, 432 Park Ave. South, New York, NY 10016.

## Psychologists

(D.O.T. 045.061, .067, .107-022, -026, -030, -034, and -046)

### Nature of the Work

Psychologists study human behavior and mental processes to understand, explain, and change people's behavior. They may study the way a person thinks, feels, or behaves. Research psychologists investigate the physical, cognitive, emotional, or social aspects of human behavior. Psychologists in applied fields counsel and conduct training programs; do market research; or provide mental health services in hospitals, clinics, or private settings.

Like other social scientists, psychologists formulate hypotheses and collect data to test their validity. Research methods depend on the topic under study. Psychologists may gather information through controlled laboratory experiments; personality, performance, aptitude, and intelligence tests; observation, interviews, and questionnaires; clinical studies; or surveys. Computers are widely used to record and analyze this information.

Since psychology deals with human behavior, psychologists apply their knowledge and techniques to a wide range of endeavors including human services, management, education, law, and sports. In addition to the variety of work settings, psychologists specialize in many different areas. *Clinical psychologists*—who constitute the largest specialty—generally work in hospitals or clinics, or maintain their own practices. They may help the mentally or emotionally disturbed adjust to life. Others help people deal with life stresses such as divorce or aging. Clinical psychologists interview patients; give diagnostic tests; provide individual, family, and group psychotherapy; and design and implement behavior modification programs. They may collaborate with physicians and other specialists in developing treatment programs. Some clinical psychologists work in universities, where they train graduate students in the delivery of mental health services. Others administer community mental health programs. *Counseling psychologists* use several techniques, including interviewing and testing, to advise people on how to deal with problems of everyday living—personal, social, educational, or vocational. (Also see the statements on counselors and social workers elsewhere in the *Handbook*.)

*Developmental psychologists* study the patterns and causes of behavioral change as people progress through life from infancy to adulthood. Some concern themselves with behavior during infancy, childhood, and adolescence, while others study changes that take place during maturity and old age. *Educational psychologists* design, develop, and evaluate educational programs. *Experimental psychologists* study behavior processes and work with human beings and animals such as rats, monkeys, and pigeons. Prominent areas of experimental research include motivation, thinking, attention, learning and retention, sensory and perceptual processes, effects of substance use and abuse, and genetic and neurological factors in behavior.

*Industrial and organizational psychologists* apply psychological techniques to personnel administration, management, and marketing problems. They are involved in policy planning, applicant screening, training and development, psychological test research, counseling, and organizational development and analysis, among other activities. For example, an industrial psychologist may work with management to develop better training programs and to reorganize the work setting to improve worker productivity or quality of worklife. *School psychologists* work with teachers, parents, and administrators to resolve students' learning and behavior problems. *Social psychologists* examine people's interactions with others and with the social environment. Prominent areas of study include group behavior, leadership, attitudes, and interpersonal perception.

Some relatively new specialties include cognitive psychology, health psychology, and neuropsychology. *Cognitive psychologists* deal with the brain's role in memory, thinking, and perceptions; some are involved with research related to computer programming and artificial intelligence. *Health psychologists* promote good health through



health maintenance counseling programs that are designed, for example, to help people stop smoking or lose weight. *Neuropsychologists* study the relation between human physical systems and behavior. The emergence and growth of these specialties reflects the increasing participation of psychologists in providing direct services to special patient populations. For example, these psychologists work in stroke and head injury programs, oncology programs, and medical practices specializing in neurology.

Other areas of specialization include community psychology, comparative psychology, consumer psychology, engineering psychology, environmental psychology, family psychology, forensic psychology, psychometrics, population psychology, psychology and the arts, history of psychology, psychopharmacology, and military and rehabilitation psychology.

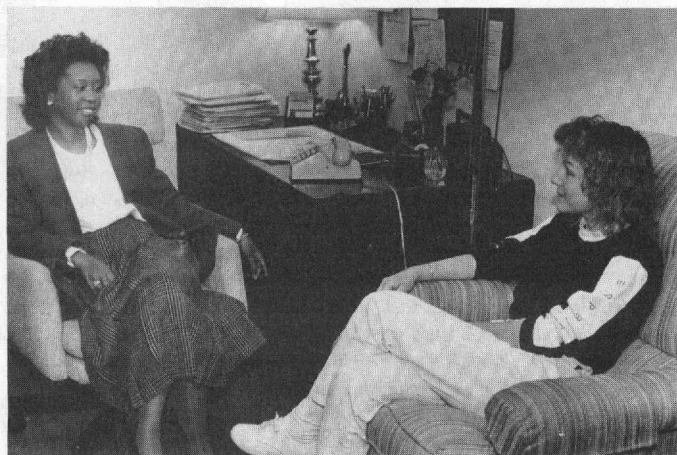
### Working Conditions

A psychologist's specialty and place of employment determine working conditions. For example, clinical, school, and counseling psychologists in private practice have pleasant, comfortable offices and set their own hours. However, they often have evening hours to accommodate their clients. Some employed in hospitals, nursing homes, and other health facilities often work evenings and weekends, while others in schools and clinics work regular hours. Psychologists employed by academic institutions divide their time among teaching, research, and administrative responsibilities. Some maintain part-time consulting practices as well. In contrast to the many psychologists who have flexible work schedules, some in government and private industry have more structured schedules. Reading and writing research reports, they often work alone. Many experience the pressures of deadlines, tight schedules, and overtime work. Their routine may be interrupted frequently. Travel may be required to attend conferences or conduct research.

### Employment

Psychologists held about 125,000 jobs in 1990. Educational institutions—primarily elementary and secondary schools—employed more than one-third of all salaried psychologists in positions involving counseling, testing, special education, research, and administration; hospitals, clinics, rehabilitation centers, nursing homes, and other health facilities employed one-third; while government agencies at the Federal, State, and local levels employed one-sixth. The Veterans Administration, the Department of Defense, and the Public Health Service employ the overwhelming majority of psychologists employed by Federal agencies. State and local governments employ psychologists in health agencies, correctional facilities, and other settings. Psychologists also work in social service organizations, research organizations, management consulting firms, market research firms, and other businesses.

After several years of experience, some psychologists enter private practice or set up their own research or consulting firms. About two-fifths of all psychologists are self-employed.



Over two-fifths of all psychologists are self-employed.

Besides the jobs described above, many persons held psychology faculty positions at colleges and universities. (For information about this occupation, see the statement on college and university faculty elsewhere in the *Handbook*.)

### Training, Other Qualifications, and Advancement

A doctoral degree is generally required for employment as a psychologist. Psychologists with doctorates (Ph.D or Psy.D.—Doctor of Psychology) qualify for a wide range of responsible research, clinical, and counseling positions in universities, private industry, school settings, and government.

Persons with a master's degree in psychology can administer and interpret tests as psychological assistants. Under the supervision of psychologists, they can conduct research in laboratories, conduct psychological evaluations, counsel patients, or perform administrative duties. They may teach in 2-year colleges or work as school psychologists or counselors.

A bachelor's degree in psychology qualifies a person to assist psychologists and other professionals in community mental health centers, vocational rehabilitation offices, and correctional programs; to work as research or administrative assistants; and to take jobs as trainees in government or business. However, without additional academic training, their advancement opportunities are limited.

In the Federal Government, candidates having at least 24 semester hours in psychology and one course in statistics qualify for entry level positions. Competition for these jobs is keen, however. Clinical psychologists generally must have completed the Ph.D. or Psy.D. requirements and have served an internship; vocational and guidance counselors usually need 2 years of graduate study in counseling and 1 year of counseling experience.

At least 1 year of full-time graduate study is needed to earn a master's degree in psychology. Requirements usually include practical experience in an applied setting or a master's thesis based on a research project. For example, a master's degree in school psychology requires 2 years of course work and a 1-year internship.

Three to 5 years of graduate work usually are required for a doctoral degree. The Ph.D. degree culminates in a dissertation based on original research. Courses in quantitative research methods, which include the use of computers, are an integral part of graduate study and usually necessary to complete the dissertation. The Psy.D., based on practical work and examinations rather than a dissertation, prepares students for clinical and other applied positions. In clinical or counseling psychology, the requirements for the doctoral degree generally include an additional year or more of internship or supervised experience.

Competition for admission into graduate programs is keen. Some universities require an undergraduate major in psychology. Others prefer only basic psychology with courses in the biological, physical, and social sciences, statistics, and mathematics.

Over 3,000 colleges and universities offer a bachelor's degree program in psychology; about 400, a master's; about 300, a Ph.D. In addition, about 30 professional schools of psychology—some affiliated with colleges or universities—usually offer the Psy.D. The American Psychological Association (APA) presently accredits doctoral training programs in clinical, counseling, and school psychology. The National Council for Accreditation of Teacher Education, with the assistance of the National Association of School Psychologists, is also involved in the accreditation of advanced degree programs in school psychology. APA also accredits institutions that provide internships for doctoral students in school, clinical, and counseling psychology.

Although financial aid is difficult to obtain, some universities award fellowships or scholarships or arrange for part-time employment. The Veterans Administration (VA) offers predoctoral traineeships to interns in VA hospitals, clinics, and related training agencies. The National Science Foundation, the Department of Health and Human Services, and many other organizations also provide financial aid.

Psychologists in independent practice or who offer any type of patient care, including those in clinical, counseling, and school psychology, must meet certification or licensing requirements. All States

and the District of Columbia have such requirements. Licensing laws vary by State, but generally require a doctorate in psychology and 1 to 2 years of professional experience. In addition, most States require that applicants pass an examination. Most State boards administer a standardized test and, in many instances, additional oral or essay examinations. Very few States certify those with a master's degree as psychological assistants or associates. Some States require continuing education for relicensure.

Most States require that licensed or certified psychologists limit their practice to those areas in which they have developed professional competence through training and experience.

The American Board of Professional Psychology recognizes professional achievement by awarding diplomas primarily in clinical psychology, clinical neuropsychology, and counseling, forensic, industrial and organizational, and school psychology. Candidates need a doctorate in psychology, 5 years of experience, and professional endorsements; they also must pass an examination.

**Table 1. Percent of doctoral degrees awarded in psychology, by subfield, 1990**

Subfield	Percent
Total.....	100
Clinical .....	41
Counseling.....	14
General .....	14
Developmental .....	5
Experimental .....	4
Industrial/organizational.....	4
Social.....	4
Educational.....	3
Cognitive .....	2
School.....	2
Other.....	10

SOURCE: National Research Council

Even more so than in other occupations, persons pursuing a career in psychology must be emotionally stable, mature, and able to deal effectively with people. Sensitivity, compassion, and the ability to lead and inspire others are particularly important for clinical work and counseling. Research psychologists should be able to do detailed work independently and as part of a team. Verbal and writing skills are necessary to communicate treatment and research findings. Patience and perseverance are vital qualities because results from psychological treatment of patients or research often are long in coming.

### Job Outlook

Employment of psychologists is expected to grow much faster than the average for all occupations through the year 2005. Largely because of the substantial investment in training required to enter this specialized field, psychologists have a strong attachment to their occupation—only a relatively small proportion leave the profession each year. Nevertheless, most job openings are expected to result from replacement needs.

Stimulating the demand for psychologists are programs to combat the increase in alcohol abuse, drug dependency, marital strife, family violence, and other problems plaguing society. Other factors spurring demand for psychologists include: increased emphasis on mental health maintenance in conjunction with the treatment of physical illness; public concern for the development of human resources, including the growing elderly population; and increased testing and counseling of children. Changes in the level of government funding for these kinds of services could affect the demand for psychologists.

Employment prospects for psychologists in colleges and universities should improve due to an expected wave of retirements among college faculty. Opportunities also will become more plentiful in

other settings such as businesses, nonprofit organizations, and research and computer firms. Companies will use psychologists' expertise in survey design, analysis, and research to provide personnel testing, program evaluation, and statistical analysis. Job opportunities in health care should remain strong—for example, in health maintenance organizations, nursing homes, and alcohol and drug abuse rehabilitation programs.

Other openings are likely to occur as psychologists study the effectiveness of changes in health, education, military, law enforcement, and consumer protection programs. Psychologists also are increasingly studying the effects on people of technological advances in areas such as agriculture, energy, the conservation and use of natural resources, and industrial and office automation.

Opportunities are best for candidates with a doctoral degree. Persons holding doctorates from leading universities in applied areas such as school, clinical, counseling, health, industrial, and educational psychology should have particularly good prospects. Psychologists with extensive training in quantitative research methods and computer science will have a competitive edge over applicants without this background.

Most graduates with a master's degree in psychology may encounter competition for the limited number of jobs for which they qualify. Graduates of master's degree programs in school psychology should have the best job prospects, as schools are expected to increase student counseling and mental health services. Some master's degree holders may find jobs as psychological assistants in community mental health centers. These positions often require direct supervision by a licensed psychologist. Others may find jobs involving research and data collection and analysis in universities, government, or private companies.

Bachelor's degree holders can expect very few opportunities in this field. Some may find jobs as assistants in rehabilitation centers or in other jobs involving data collection and analysis. Those who meet State certification requirements may become high school psychology teachers. (For more information, see the statement on secondary school teachers elsewhere in the *Handbook*.)

### Earnings

According to a 1989 survey by the American Psychological Association, the median annual salary of psychologists with a doctoral degree was about \$55,000. In academic institutions, the median was about \$41,000; in research positions, about \$50,000; and in business and industry (including self-employed), about \$67,000. Ph.D. or Psy.D. psychologists in private practice and in applied specialties generally have higher earnings than other psychologists.

The Federal Government recognizes education and experience in certifying applicants for entry level positions. In general, the average starting salary for psychologists having a bachelor's degree was about \$17,000 a year in 1991; those with superior academic records could begin at \$21,000. Counseling and school psychologists with a master's degree and 1 year of counseling experience could start at \$25,700. Clinical psychologists having a Ph.D. or Psy.D. degree and 1 year of internship could start at \$31,100; some individuals could start at \$37,300. The average salary for psychologists in the Federal Government was about \$49,900 a year in 1991.

Psychologists receive a variety of fringe benefits including paid vacations, sick leave, health insurance, and pensions. In addition, many employers also offer tuition reimbursement.

### Related Occupations

Psychologists are trained to evaluate, counsel, and advise individuals and groups. Others who do this kind of work are psychiatrists, social workers, clergy, special education teachers, and counselors.

### Sources of Additional Information

For information on careers, educational requirements, financial assistance, and licensing in all fields of psychology, contact:

• American Psychological Association, Educational Programs, Office, 1200 17th St. NW., Washington, DC 20036.

For information on careers, educational requirements, and licensing of school psychologists, contact:

• National Association of School Psychologists, 8455 Colesville Rd., Suite 1000, Silver Spring, MD 20910.



Information about State licensing requirements is available from:  
• The American Association of State Psychology Boards, P.O. Box 4389, Montgomery, AL 36103.

Information on traineeships and fellowships also is available from colleges and universities that have graduate departments of psychology.

## Sociologists

(D.O.T. 054)

### Nature of the Work

Sociologists study human society and social behavior by examining the groups and social institutions that people form. These include families, tribes, communities, and governments, as well as a variety of social, religious, political, business, and other organizations. Sociologists study the behavior and interaction of groups, trace their origin and growth, and analyze the influence of group activities on individual members. Some sociologists are concerned primarily with the characteristics of social groups, organizations, and institutions. Others are more interested in the ways individuals are affected by each other and by the groups to which they belong. Still others focus on social traits such as gender, age, or race, that make an important difference in how a person experiences life on a daily basis.

As a rule, sociologists work in one or more special fields, such as criminology; racial and ethnic relations; urban studies; group formation; social organization, stratification, and mobility; education; social psychology; urban, rural, political, industrial, and comparative sociology; gender roles and relations; sociological practice; and the family. Household and family matters have always been areas of interest for sociologists; however, these subjects recently have been attracting more attention due to the increase in the number of divorces and changes in living arrangements.

Other specialties include medical sociology—the study of social factors that affect mental and public health; gerontology—the study of aging and the special problems of aged persons; environmental sociology—the study of the effects of the physical environment and technology on people; clinical sociology—therapy and intervention in social systems for assessment and change; demography—the study of the size, characteristics, and movement of populations; criminology—the study of factors producing deviance from accepted legal and cultural norms; and industrial sociology—the study of work and organizations. For example, an industrial sociologist may work as an arbitrator helping settle disputes arising in the workplace.

Other sociologists specialize in research design and data analysis. Sociologists usually conduct surveys or engage in direct observation to gather data. For example, after providing for controlled conditions, an organizational sociologist might test the effects of different styles of leadership on individuals in a small work group. A medical sociologist might study the effects of terminal illness on family interaction. Sociological researchers also evaluate the efficacy of different kinds of social programs. They might examine and evaluate particular programs of income assistance, job training, or remedial education. Increasingly, sociologists use statistical and computer techniques in their research.

The results of sociological research aid educators, lawmakers, administrators, and others interested in resolving social problems and formulating public policy. For example, in recent years sociologists have devoted more time to studying issues related to abortion rights, AIDS disease, high school dropouts, homeless, and latch-key children. Sociologists often work closely with community groups and members of other professions, including psychologists, physicians, economists, statisticians, urban and regional planners, political scientists, anthropologists, law enforcement and criminal administration officials, and social workers.

Some sociologists are primarily administrators. They apply their professional knowledge in areas as diverse as intergroup relations, family counseling, public opinion analysis, law enforcement, education, personnel administration, public relations, regional and commu-

nity planning, and health services planning. They may, for example, administer social service programs in family and child welfare agencies or develop social policies and programs for government, community, youth, or religious organizations.

A number of sociologists are employed as consultants. Using their expertise and research skills, they advise on such diverse problems as halfway houses and foster care for the mentally ill; ways of counseling ex-offenders; or how to improve efficiency and flexibility in large corporations. Sociologists in business consult on the management of complex organizations and conduct market research for advertisers and manufacturers. Increasingly, sociologists are involved in the evaluation of social and welfare programs.

Sociologists are often confused with social workers, and in fact they do contribute to one another's disciplines. However, while sociologists conduct research on organizations, groups, and individuals, social workers directly help people who are unable to cope with their circumstances. (For more information, see the statement on social workers elsewhere in the *Handbook*.)

### Working Conditions

The work of sociologists generally includes much reading, research, and writing. Sociologists working in government agencies and private firms have structured work schedules, and many experience the pressures of deadlines, tight schedules, heavy workloads, and overtime. They often work as an integral part of a team. Their routine may be interrupted by numerous telephone calls, letters, requests for information, and meetings. Travel may be required to collect data for research projects or to attend professional conferences. Sociologists in private practice have varied hours, and may work evenings and weekends to accommodate clients or complete a project.



*Sociologists study human society and social behavior.*

Sociology faculty have more flexible work schedules, dividing their time between teaching, research, consulting, and administrative responsibilities.

### Employment

Sociologists held several thousand jobs in 1990. Government agencies employ a significant proportion of them to deal with such subjects as poverty, crime, public assistance, population growth, education, social rehabilitation, community development, mental health, racial and ethnic relations, drug abuse, school dropouts, and environmental impact studies. Sociologists in the Federal Government work primarily for the Departments of Health and Human Services, Agriculture, Interior, and Defense. Those specializing in demography, international development, or health may work for international organizations such as the World Bank, the United Nations, the World Health Organization, and Federal agencies such as the Bureau of the Census. Sociologists specializing in criminology work primarily for law enforcement agencies in State and local government. Sociologists also hold managerial, research, personnel, and planning positions in research firms, consulting firms, educational institutions, corporations, professional and trade associations, hospitals, and welfare or other nonprofit organizations. Some sociologists have private practices in counseling, research, or consulting. Others held sociology faculty positions in colleges and universities. (For more information about this occupation, see the statement on college and university faculty elsewhere in the *Handbook*.)

### Training, Other Qualifications, and Advancement

A master's degree in sociology is usually the minimum requirement for employment in applied research or community college teaching. The Ph.D. degree is essential for many senior level positions in research institutes, consulting firms, corporations, and government agencies, and is required for appointment to permanent teaching and research positions in colleges and universities.

Sociologists with master's degrees can qualify for administrative and research positions in public agencies and private businesses. Training in research, statistical, and computer methods is an advantage in obtaining such positions.

Bachelor's degree holders in sociology often get jobs in related fields. Their training in research, statistics, and human behavior qualifies them for entry-level positions in social services, management, sales, personnel, and marketing. Many work in social service agencies as counselors or child care, juvenile, or recreation workers. Others are employed as interviewers or as administrative or research assistants. Sociology majors with sufficient training in statistical and survey methods may qualify for positions as junior analysts or statisticians in business or research firms or government agencies. Regardless of a sociologist's level of educational attainment, completion of an internship while in school can prove invaluable in finding a position in this field.

In the Federal Government, candidates generally need a college degree with 24 semester hours in sociology, including course work in theory and methods of social research. However, since competition for the limited number of positions is keen, advanced study in the field is highly recommended.

Over 180 colleges and universities offer doctoral degree programs in sociology; most of these also offer a master's degree. In over 160 schools, the master's is the highest degree offered; about 850 schools have bachelor's degree programs. Sociology departments offer a wide variety of courses, including aging, criminal justice, delinquency, deviance and social control, family and society, field methods, gender roles, sociological theory, social statistics and quantitative methods, social psychology, rural sociology, organizational behavior and analysis, mental health, and science and technology. Students are encouraged to combine a strong quantitative background with an area of study that interests them.

Some departments of sociology have highly structured programs, while others are relatively unstructured and leave most course selection up to the individual student. Departments have different requirements regarding foreign language skills, courses in statistics, internships, and completion of a thesis for the master's degree.

The choice of a graduate school is important for people who want to become sociologists. Students should select a school that has adequate research facilities and offers appropriate areas of specialization such as theory, demography, clinical sociology, or quantitative methods. Opportunities to gain practical experience also may be available, and sociology departments may help place students in business or research firms and government agencies.

The American Sociological Association sponsors a master's level certification program in applied social research. Certification by the Sociological Practice Association (SPA) is necessary for some clinical and applied sociology positions, especially at the doctoral level. Certification requirements generally include at least 1 year of experience that demonstrates competence in clinical sociology, a doctorate or a master's degree from an accredited school, and successful demonstration of competency at SPA-sponsored training workshops or conferences.

The ability to work independently is important for sociologists. Intellectual curiosity is an essential trait; researchers must have an inquiring mind and a desire to find explanations for the phenomena they observe. Like other social scientists, sociologists must be objective in gathering information about social institutions and behavior; they need analytical skills in order to organize data effectively and reach valid conclusions; and they must be careful and systematic in their work. They should be able to get along well with people, and should have good oral and writing skills.

### Job Outlook

Demand for sociologists should be spurred by research in various fields such as demography, criminology, gerontology, and medical sociology, and by the need to evaluate and administer programs designed to cope with social and welfare problems. Most job openings, however, are expected to result from the need to replace sociologists who transfer to other occupations, or retire or leave the labor force for other reasons.

Opportunities should be best for Ph.D. graduates. Employment prospects for college and university positions should improve due to an expected wave of retirements among college faculty.

An increasing proportion of Ph.D.'s are finding job opportunities outside colleges and universities. Some may take research and administrative positions in government, research organizations, and business firms. Those well-trained in quantitative research methods—including survey techniques, advanced statistics, and computer science—will have the widest choice of jobs. For example, private firms that contract with the government to evaluate social programs and conduct other research increasingly seek sociologists with strong quantitative skills.

Demand is expected to be much stronger for sociologists with training in practice areas—such as clinical sociology, criminology, environmental sociology, medical sociology, gerontology, evaluation research, and demography—than for specialists in sociological theory. For example, additional demographers may be sought to help businesses plan marketing and advertising programs and to help developing countries analyze censuses, prepare population projections, and formulate long-range public planning programs. More criminologists may be sought to help reduce deviance from legally and socially accepted behavior in our society. More gerontologists may be needed to help formulate programs for our expanding elderly population.

Persons with a master's degree will find positions in junior and community colleges. Others may find employment in Federal, State, and local governments as planners, demographers, or social researchers. Some may find research and administrative jobs in research firms, business, and government. For example, sociologists with backgrounds in business and quantitative research methods may find opportunities as management analysts or marketing researchers.

Bachelor's degree holders will find fewer opportunities for jobs as professional sociologists. As in the past, many graduates will take positions as trainees and assistants in business, industry, and government. As with advanced degree holders, extensive training in quantitative research methods provides these graduates with the most marketable skills. Some may find positions in social welfare agen-



cies. For those planning careers in law, journalism, business, social work, recreation, counseling, and other related disciplines, sociology provides an excellent background. Those who meet State certification requirements may become high school sociology teachers. (For more information, see the statement on secondary school teachers elsewhere in the *Handbook*.)

### Earnings

According to the American Sociological Association, the median salary of sociologists in business and industry was \$41,200 in 1990. Sociologists working for nonprofit agencies averaged \$34,800 annually.

The Federal Government recognizes education and experience in certifying applicants for entry level positions. In general, the average entrance salary for sociologists with a bachelor's degree was about \$17,000 or \$21,000 a year in 1991, depending upon the applicant's academic record. The starting salary for those with a master's degree was about \$25,700 a year, and for those with a Ph.D., about \$31,100, while some individuals could start at \$37,300. Sociologists in the Federal Government averaged around \$49,600 a year in 1991.

In general, sociologists with the Ph.D. degree earn substantially higher salaries than those without the doctoral degree. Some sociologists supplement their regular salaries with earnings from other sources, such as consulting, counseling work, or publishing articles and books.

Like other professional workers, sociologists receive a variety of fringe benefits including paid vacations, sick leave, health insurance, and a pension plan.

### Related Occupations

Sociologists are not the only people whose jobs require an understanding of social processes and institutions. Others whose work demands such expertise include anthropologists, economists, geographers, historians, political scientists, psychologists, urban and regional planners, reporters and correspondents, and social workers.

### Sources of Additional Information

Additional information on careers, certification, and graduate departments of sociology is available from:

• The American Sociological Association, 1722 N St. NW., Washington, DC 20036.

For information about careers in demography, contact:

• Population Association of America, 1722 N St. NW., Washington, DC 20036.

For information about careers and certification in clinical and applied sociology, contact:

• Sociological Practice Association, College of Arts and Sciences, South Eastern Louisiana University, Hammond, LA 70402.

For information about careers in rural sociology, contact:

• Rural Sociology Society, Department of Sociology, Montana State University, Bozeman, MT 59715.

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## Urban and Regional Planners

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(D.O.T. 188.167-110 and 199.167-014)

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### Nature of the Work

Urban and regional planners, often called community or city planners, develop programs to provide for growth and revitalization of urban, suburban, and rural communities and their regions. Planners help local officials make decisions on social, economic, and environmental problems.

Planners usually devise plans outlining the best use of a community's land—where residential, commercial, recreational, and other human services should take place. Planners also are involved in various other planning activities, including social services, transportation, and resource development. They address such issues as central city redevelopment, traffic congestion, and the impact of growth and change on an area. They formulate capital improvement plans to construct new school buildings, public housing, and sewage systems. Planners are involved in

environmental issues including pollution control, wetland preservation, and landfills. Planners are also confronting social issues such as sheltering the homeless, premises for drug treatment centers, and needs of an aging population.

Planners examine community facilities such as health clinics and schools to be sure these facilities can meet the demands placed upon them. They keep abreast of the economic and legal issues involved in community development or redevelopment and changes in housing and building codes or environmental regulations. Because suburban growth has increased the need for traveling between suburbs and the urban center, the planner's job often includes designing new transportation systems and parking facilities. As an alternative, planners may develop transportation management plans which are designed to control the traffic, not accommodate it. For example, developers may be required to provide public transportation facilities or cities may be required to set up van pool transportation systems.

Urban and regional planners prepare for situations that are likely to develop as a result of population growth or social and economic change. They estimate, for example, the community's long-range needs for housing, transportation, and business and industrial sites. Working within a framework set by the community government, they analyze and propose alternative ways to achieve more efficient and attractive urban areas.

Before preparing plans for long-range community development, urban and regional planners prepare detailed studies that show the current use of land for residential, business, and community purposes. These reports include such information as the location of streets, highways, water and sewer lines, schools, libraries, and cultural and recreational sites. They also provide information on the types of industries in the community, characteristics of the population, and employment and economic trends. With this information, urban and regional planners propose ways of using undeveloped or underutilized land and design the layout of recommended buildings and other facilities such as subway lines and stations. They also prepare materials that show how their programs can be carried out and what they will cost. As in many other fields, planners increasingly use computers to record and analyze information. For example, computers are used for determining program costs and forecasting future trends in employment, housing, or population.

Urban and regional planners often confer with land developers, civic leaders, and other public planning officials. They often function as mediators in community disputes by presenting alternatives that are acceptable to opposing parties. Planners may prepare materials for community relations programs, speak at civic meetings, and appear before legislative committees to explain their proposals.

In large organizations, planners usually specialize in areas such as physical design, public transportation, community relations, historic preservation, environmental issues, and the renovation or reconstruction of rundown business districts. In small organizations, planners must be able to do various kinds of work.

### Working Conditions

Urban and regional planners spend most of their time in offices. To be familiar with areas that they are developing, however, they occasionally spend time outdoors examining the features of the land under consideration for development, its current use, and the types of structures on it. Although most planners have a scheduled 40-hour workweek, they frequently attend evening or weekend meetings or public hearings with citizens' groups. Planners may experience the pressure of deadlines and tight work schedules.

### Employment

Urban and regional planners held about 23,000 jobs in 1990. Local government planning agencies—city, county, or regional—employed 3 out of 4. An increasing proportion of public agency planners work in small jurisdictions with fewer than 50,000 inhabitants. Many are employed in State agencies that deal with housing, transportation, or environmental protection. Federal employers include the Departments of Defense, Housing and Urban Development, and Transportation.

Many planners do consulting work, either part time in addition to a regular job, or full time for a firm that provides services to private developers or government agencies. Other employers include architectural

and surveying firms, educational institutions, banks and mortgage companies, large land developers, and law firms specializing in land use.

### Training, Other Qualifications, and Advancement

Employers often seek workers who have advanced training in urban or regional planning. Most entry jobs in Federal, State, and local government agencies require 2 years of graduate study in urban or regional planning, or the equivalent in work experience. A master's degree from an accredited planning program is the usual requirement at the entry level. Although graduates having a bachelor's degree in planning, architecture, or engineering may qualify for beginning positions, their advancement opportunities may be limited without a master's degree. Courses in related disciplines such as demography, economics, finance, health administration, location theory, and management are highly recommended. In addition, familiarity with statistical techniques and computer usage is highly desirable.

In 1991, about 80 colleges and universities offered a master's degree program in urban or regional planning. Most of these programs have been accredited by the Planning

Accreditation Board, which consists of representatives of the American Planning Association (APA), the American Institute of Certified Planners, and the Association of Collegiate Schools of Planning. Most graduate programs in planning require 2 years. Graduate students spend considerable time in studios, workshops, or laboratory courses learning to analyze and solve urban and regional planning problems and often are required to work in a planning office part time or during the summer. Local government planning offices offer students internships that provide experience that often proves invaluable in obtaining a full-time planning position after graduation.

The American Institute of Certified Planners (AICP), a branch of APA, grants certification to individuals with the appropriate combination of education and professional experience who pass an examination. Data on AICP membership indicate that certified urban planners tend to hold the more responsible, better paying positions in their field.

Planners must be able to think in terms of spatial relationships and visualize the effects of their plans and designs. Planners should be flexible and able to reconcile different viewpoints to make constructive policy recommendations. The ability to communicate effectively both orally and in writing also is necessary for anyone interested in this field.

After a few years' experience, urban and regional planners may advance to assignments requiring a high degree of independent judgment such as designing the physical layout of a large development or recommending policy, program, and budget options. Some are promoted to jobs as planning directors and spend a great deal of time meeting with officials in other organizations, speaking to civic groups, and supervising other professionals. Further advancement occurs through a transfer to a large city with more complex problems and greater responsibilities.

### Job Outlook

Employment of urban and regional planners is expected to grow about as fast as the average for all occupations through the year 2005. Most job openings will arise from the need to replace experienced planners who transfer to other occupations, or retire or leave the labor force for other reasons.

Demand will be spurred primarily by the continuing importance of environmental, economic, transportation, and energy production planning. Other factors contributing to the demand for urban and regional planners include interest in zoning and land-use planning in undeveloped and nonmetropolitan areas, including coastal areas; the need to replace old public facilities such as bridges, highways, and sewers; historic preservation and rehabilitation activities; central city redevelopment; and commercial development to support suburban areas with rapidly growing populations.

Demand for urban and regional planners varies by region. Opportunities should be best in rapidly growing communities and in States which have mandated planning, such as Florida and Maine. Local governments need planners to address problems associated with population growth. For example, new housing developments require roads, sewer systems, fire stations, schools, libraries, and recreation facilities that must be planned while considering budgetary constraints. Job growth also is expected to occur in smaller cities and towns in older areas—for exam-

ple, in the Northeast—undergoing preservation and redevelopment. Changes in the level of government funding for planning services could affect demand for these workers.

Graduates of leading institutions with accredited planning programs should have very good job prospects. For other jobseekers, geographic mobility and the willingness to work in small towns or rural areas may be necessary.

### Earnings

Salaries of planners vary by degree, type of employer, experience, size of community in which they work, and geographic location. According to a 1989 survey by APA, urban and regional planners earned a median annual salary of \$39,500. Planners with a Ph.D. earned a median salary of \$50,000; those with a master's degree earned \$40,000; and bachelor's degree holders earned \$36,000.

The median annual salary of planners in city governments was \$38,000; in county governments, \$34,700; in joint city/county governments, \$32,400; in State governments, \$40,000; in private consulting firms, \$45,000; and in nonprofit foundations, \$39,500. For planners with over 10 years' experience, county and joint city/county agencies paid about \$44,400 annually, while private businesses and consulting firms paid about \$55,000. Directors of public planning agencies earned as much as \$13,000 more than staff members at comparable levels of experience. Salaries of planners in large jurisdictions may be as much as \$5,000 a year higher than their counterparts in small jurisdictions.

Planners with a master's degree were hired by the Federal Government at a starting average salary of \$25,700 a year in 1991. In some cases, persons having less than 2 years of graduate work could enter Federal service as interns at yearly salaries of about \$17,000 or \$21,000. Salaries of urban and regional planners employed by the Federal Government averaged \$48,000 a year in 1991.

Like many professional occupations, urban and regional planners receive a basic fringe benefit package which includes vacation and sick leave, health and life insurance, and a pension plan.

### Related Occupations

Urban and regional planners develop plans for the orderly growth of urban and rural communities. Others whose work is related to the work of planners include architects, landscape architects, city managers, civil engineers, environmental engineers, and geographers.

### Sources of Additional Information

Additional information on careers, salaries, and certification in urban and regional planning, as well as job referrals are available from:

☛ American Planning Association, 1776 Massachusetts Ave. NW., Washington, DC 20036.

Information on schools offering training in urban and regional planning is available from:

☛ American Planning Association, Planners' Bookstore, 1313 East 60th St., Chicago, IL 60637.



*Local government planning agencies employ 3 out of 4 urban and regional planners.*



# Lawyers and Judges

(D.O.T. 110; 111; 119.107, .117, .167-010, .267-014; 169.267-010)

Laws affect every aspect of our society. They regulate the entire spectrum of relationships among individuals, groups, businesses, and governments. They define rights as well as restrictions, covering such diverse activities as judging and punishing criminals, granting patents, drawing up business contracts, paying taxes, settling labor disputes, constructing buildings, and administering wills.

Because social needs and attitudes are continually changing, the legal system that regulates our social, political, and economic relationships also changes. Lawyers and judges link the legal system and society. To perform this role, they must understand the world around them and be sensitive to the numerous aspects of society that the law touches. They must comprehend not only the words of a particular statute, but the human circumstances it addresses as well.

As our laws grow more complex, the work of lawyers and judges takes on broader significance. Laws affect our lives in a variety of ways as the legal system performs regulatory tasks in areas such as transportation, commerce, consumer protection, the environment, and social welfare. Lawyers interpret these laws, rulings, and regulations for individuals and businesses, and serve as their advocates in resolving disputes. When disputes must be settled in court, judges hear each side of the disputes and administer resolutions. Through their decisions, judges play an important role in the development of common law by interpreting how particular laws apply to specific circumstances.

## Nature of the Work

**Lawyers.** Lawyers, also called attorneys, act as both advocates and advisors in our society. As advocates, they represent one of the opposing parties in criminal and civil trials by presenting arguments that support their client in court. As advisors, lawyers counsel their clients as to their legal rights and obligations and suggest particular courses of action in business and personal matters.

Whether acting as advocates or advisors, nearly all attorneys have certain activities in common. Probably the most fundamental activities are the interpretation of the law and its application to a specific situation. This requires in-depth research into the purposes behind the applicable laws and into judicial decisions that have been applied to those laws under circumstances similar to those currently faced by the client. Based on this research, attorneys advise clients what actions would best serve their interests.

A growing number of lawyers are using computers in legal research. While all lawyers continue to make use of law libraries to prepare cases, some supplement their search of the conventional printed sources with computer software packages that automatically search the legal literature and identify legal texts that may be relevant to a specific subject. In litigation that involves many supporting documents, lawyers may also use computers to organize and index the material. Tax lawyers are also increasingly using computers to make tax computations and explore alternative tax strategies for clients.

Lawyers must deal with people in a courteous, efficient manner and not disclose matters discussed in confidence with clients. They hold positions of great responsibility, and are obligated to adhere to strict rules of ethics.

Finally, most lawyers write reports or briefs which must communicate clearly and precisely. The more detailed aspects of a lawyer's job depend upon his or her field of specialization and position.

While all lawyers are allowed to represent parties in court, some appear in court more frequently than others. Some lawyers specialize in trial work. These lawyers need an exceptional ability to think quickly and speak with ease and authority, and must be thoroughly familiar with courtroom rules and strategy. Trial lawyers still spend most of their time outside the courtroom conducting research, inter-

viewing clients and witnesses, and handling other details in preparation for trial.

Although most lawyers deal with many different areas of the law, a significant number concentrate on one branch of law, such as admiralty, probate, or international law. Communications lawyers, for example, may represent radio and television stations in court and in their dealings with the Federal Communications Commission. They help established stations prepare and file license renewal applications, employment reports, and other documents required by the FCC on a regular basis. They also keep their clients informed of changes in FCC regulations. Communications lawyers help individuals or corporations buy or sell a station or establish a new one.

Lawyers who represent public utilities before the Federal Energy Regulatory Commission and other Federal and State regulatory agencies handle matters involving utility rates. They develop strategy, arguments, and testimony; prepare cases for presentation; and argue the case. These lawyers also inform clients about changes in regulations and give advice about the legality of their actions.

Still other lawyers advise insurance companies about the legality of insurance transactions. They write insurance policies to conform with the law and to protect companies from unwarranted claims. They review claims filed against insurance companies and represent the companies in court.

The largest single group of lawyers are in private practice where they may concentrate on civil law, areas such as litigation, wills, trusts, contracts, mortgages, titles, and leases. Some manage a person's property as trustee or, as executor, see that provisions of a client's will are carried out. Others handle only public interest cases—civil or criminal—which have a potential impact extending well beyond the individual client.

A lawyer may be employed full time by a single client. If the client is a corporation, the lawyer is known as house counsel and usually advises a company about legal questions that arise from its business activities. These questions might involve patents, government regulations, a business contract with another company, a property interest, or a collective bargaining agreement with a union.

Attorneys employed at the various levels of government constitute still another category. These lawyers are an important part of the criminal justice system and may work for a State attorney general, a prosecutor or public defender, or a court. At the Federal level, attorneys may investigate cases for the Department of Justice or other agencies. Also, lawyers at every government level help develop laws and programs, draft and interpret legislation, establish enforcement procedures, and argue cases.

Other lawyers work for legal aid societies—private, nonprofit corporations established to serve disadvantaged people. These lawyers generally handle civil rather than criminal cases.

A relatively small number of trained attorneys work in law schools. Most are faculty members who specialize in one or more subjects, while others serve as administrators. Some work full time in nonacademic settings and teach part time. (For additional information, see the statement on college and university faculty elsewhere in the *Handbook*.) Some lawyers become judges, although not all judges have practiced law.

**Judges.** Judges oversee the legal process that in courts of law resolves civil disputes and determines guilt in criminal cases according to Federal and State laws and those of local jurisdictions. They preside over cases touching on virtually every aspect of society, from traffic offenses to disputes over management of professional sports, from the rights of huge corporations to questions of disconnecting life support equipment for terminally ill persons. They are responsible for insuring that trials and hearings are conducted fairly and that justice is administered in a manner that safeguards the legal rights of all parties involved. Judges preside over trials or hearings and listen as attorneys representing the parties present and argue their cases. They

rule on the admissibility of evidence and methods of conducting testimony, and settle disputes between the opposing attorneys. They insure that rules and procedures are followed, and if unusual circumstances arise for which standard procedures have not been established, judges direct how the trial will proceed based on their knowledge of the law.

Judges often hold pretrial hearings for cases. They listen to allegations and, based on the evidence presented, determine whether they have enough merit for a trial to be held. In criminal cases, judges may decide that persons charged with crimes should be held in jail pending their trial, or may set conditions for release through the trial. In civil cases, judges may impose restrictions upon the parties until a trial is held.

When trials are held, juries are often selected to decide cases. However, judges decide cases when the law does not require a jury trial, or when the parties waive their right to a jury. Judges instruct juries on applicable laws, direct them to deduce the facts from the evidence presented, and hear their verdict. Judges sentence those convicted in criminal cases in many States. They also award relief to litigants including, where appropriate, compensation for damages in civil cases.

Judges' duties vary according to the extent of their jurisdictions and powers. *General trial court judges* of the Federal and State court systems have jurisdiction over any case in their system. They generally try civil cases that transcend the jurisdiction of lower courts, and all cases involving felony offenses. Federal and State *appellate court judges*, although few in number, have the power to overrule decisions made by trial court or administrative law judges if they determine that errors were made in a case, or if legal precedent does not support the judgement of the lower court. They rule on fewer cases and rarely have direct contacts with the people involved.

The majority of State court judges preside in courts whose jurisdiction is limited by law to certain types of cases. A variety of titles are assigned to these judges, but among the most common are *municipal court judge*, *county court judge*, *magistrate*, or *justice of the peace*. Traffic violations, misdemeanors, small claims cases, and pretrial hearings constitute the bulk of the work of these judges, but some States allow them to handle cases involving domestic relations, probate, contracts, and selected other areas of the law.

*Administrative law judges* or *hearing officers* are employed by government agencies to rule on appeals of agency administrative decisions regarding such things as a person's eligibility for various social insurance benefits or worker's compensation, protection of the environment, enforcement of health and safety regulations, and compliance with economic regulatory requirements.

### Working Conditions

Lawyers and judges do most of their work in offices, law libraries, and courtrooms. Lawyers sometimes meet in clients' homes or places of business and, when necessary, in hospitals or prisons. They frequently travel to attend meetings; to gather evidence; and to appear before courts, legislative bodies, and other authorities.

Salaried lawyers in government and private corporations generally have structured work schedules. Lawyers in private practice may work irregular hours while conducting research, conferring with clients, or preparing briefs during nonoffice hours. Lawyers often work long hours, and about half regularly work 50 hours or more per week. They are under particularly heavy pressure, for example, when a case is being tried. Preparation for court includes keeping abreast of the latest laws and judicial decisions.

Many judges work a standard 40-hour week, but the caseload of some judges requires that they work over 50 hours per week. In addition, many judges spend as many hours outside of court preparing for trials, researching points of law, and preparing rulings and judgments as they do on the bench. Some judges with limited jurisdiction are employed part time and divide their time between their judicial responsibilities and other careers.

Although work generally is not seasonal, the work of tax lawyers and other specialists may be an exception. Since lawyers in private practice can often determine their own workload and when they will retire, many stay in practice well beyond the usual retirement age.

### Employment

Lawyers and judges held about 633,000 jobs in 1990. About four-fifths of the 587,000 lawyers practiced privately, either in law firms or in solo practices. Most of the remaining lawyers held positions in government, the greatest number at the local level. In the Federal Government, lawyers are concentrated in the Departments of Justice, Treasury, and Defense, but they work for other Federal agencies as well. Other lawyers are employed as house counsel by public utilities, banks, insurance companies, real estate agencies, manufacturing firms, welfare and religious organizations, and other business firms and nonprofit organizations. Some salaried lawyers also have part-time independent practices; others work as lawyers part time while working full time in another occupation.

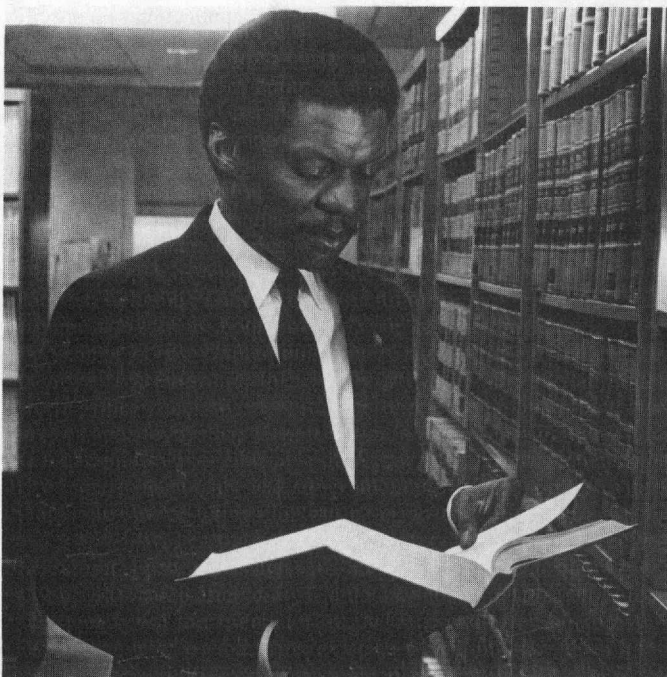
Judges held 46,000 jobs in 1990. All worked for Federal, State, or local governments, with about half holding positions in State government. Most of the remainder were employed at the local level.

Many people trained as lawyers are not employed as lawyers or judges; they work as law clerks, law school professors, managers and administrators, and in a variety of other occupations.

### Training, Other Qualifications, and Advancement

To practice law in the courts of any State or other jurisdiction, a person must be licensed, or admitted to its bar, under rules established by the jurisdiction's highest court. Nearly all require that applicants for admission to the bar pass a written bar examination. Most jurisdictions also require applicants to pass a separate written ethics examination. Lawyers who have been admitted to the bar in one jurisdiction occasionally may be admitted to the bar in another without taking an examination if they meet that jurisdiction's standards of good moral character and have a specified period of legal experience. Federal courts and agencies set their own qualifications for those practicing before them.

To qualify for the bar examination in most States, an applicant must complete at least 3 years of college and graduate from a law school approved by the American Bar Association (ABA) or the proper State authorities. (ABA approval signifies that the law school—particularly its library and faculty—meets certain standards developed by the Association to promote quality legal education.) In 1990, the American Bar Association approved 175 law schools. Others were approved by State authorities only. With certain exceptions, graduates of schools not approved by the ABA generally are restrict-



Attorneys spend many hours researching applicable laws and past judicial decisions.



ed to taking the bar examination and practicing in the State or other jurisdiction in which the school is located; most of these schools are in California. Seven States accept the study of law in a law office or in combination with study in a law school; only California accepts the study of law by correspondence as qualifying for taking the bar examination. Several States require registration and approval of students by the State Board of Law Examiners, either before they enter law school or during the early years of legal study.

Although there is no nationwide bar examination, 46 States, the District of Columbia, Guam, Saipan, and the Virgin Islands require the 6-hour Multistate Bar Examination (MBE) as part of the bar examination; the MBE is not required in Indiana, Iowa, Louisiana, and Washington. The MBE, covering issues of broad interest, is given in addition to a locally prepared 6-hour State bar examination. The 3-hour Multistate Essay Examination (MSEE) is used as part of the State bar examination in eight States, and additional States are considering adding it as a requirement. States vary in their use of MBE and MSEE scores.

The required college and law school education usually takes 7 years of full-time study after high school—4 years of undergraduate study followed by 3 years in law school. Although some law schools accept a very small number of students after 3 years of college, most require applicants to have a bachelor's degree. To meet the needs of students who can attend only part time, a number of law schools have night or part-time divisions which usually require 4 years of study. In 1990, about one 1 of 6 graduates of ABA-approved schools were part-time students.

Preparation for a career as a lawyer really begins in college. Although there is no recommended "prelaw" major, the choice of an undergraduate program is important. Certain courses and activities are desirable because they give the student the skills needed to succeed both in law school and in the profession. Essential skills—proficiency in writing, reading and analyzing, thinking logically, and communicating verbally—are learned during high school and college. An undergraduate program that cultivates these skills while broadening the student's view of the world is desirable. Majors in the social sciences, natural sciences, and humanities all are suitable, although a student should not specialize too narrowly. Regardless of one's major, courses in English, a foreign language, public speaking, government, philosophy, history, economics, mathematics, and computer science, among others, are useful.

Students interested in a particular aspect of law may find related courses helpful; for example, engineering and science courses for the prospective patent attorney, and accounting for the future tax lawyer. In addition, word processing is advisable simply for convenience in law school and on the job.

Acceptance by most law schools depends on the applicant's ability to demonstrate an aptitude for the study of law, usually through good undergraduate grades, the Law School Admission Test (LSAT), the quality of the applicant's undergraduate school, any prior work experience, and sometimes a personal interview. However, law schools vary in the weight that they place on each of these factors.

Nearly all law schools require that applicants take the LSAT and that they have certified transcripts sent to the Law School Data Assembly Service. This service then sends applicants' LSAT scores and their standardized records of college grades to the law schools of their choice. Both this service and the LSAT are administered by the Law School Admission Services.

Competition for admission to many law schools is intense. Enrollments rose very rapidly during the 1970's, with applicants far outnumbering available seats. Since then, law school enrollments have remained relatively unchanged and the number of applicants has fluctuated, however, the number of applicants to most law schools still greatly exceeds the number that can be admitted. Enrollments are expected to remain at about their present level through the year 2005, and competition for admission to the more prestigious law schools will remain keen.

During the first year or year and a half of law school, students generally study fundamental courses such as constitutional law, contracts, property law, torts, judicial procedures, and legal writing. In the remaining time, they may elect specialized courses in fields such as tax, labor, or corporation law. Practical experience often is

acquired by participation in school sponsored legal aid or legal clinic activities, in the school's moot court competitions in which students conduct appellate arguments, in practice trials under the supervision of experienced lawyers and judges, and through research and writing on legal issues for the school's law journal.

In 1990, law students in 38 States and other jurisdiction were required to pass the Multistate Professional Responsibility Examination (MPRE), which tests their knowledge of the ABA codes on professional responsibility and judicial conduct. In some States, the MPRE may be taken during law school, usually after completing a course on legal ethics.

A number of law schools have clinical programs where students gain legal experience through practice trials and law school projects under the supervision of practicing lawyers and law school faculty. Law school clinical programs might include work in legal aid clinics, for example, or on the staff of legislative committees. Part-time or summer clerkships in law firms, government agencies, and corporate legal departments also provide experience that can be extremely valuable later on. Such training can provide references or lead directly to a job after graduation, and can help students decide what kind of practice best suits them. Clerkships also may be an important source of financial aid.

Graduates receive the degree of *juris doctor* (J.D.) or *bachelor of law* (LL.B.) as the first professional degree. Advanced law degrees may be desirable for those planning to specialize, do research, or teach. Some law students pursue joint degree programs, which generally require an additional year. Joint degree programs are offered in a number of areas, including law and business administration and law and public administration.

After graduation, lawyers must keep informed about legal and non-legal developments that affect their practice. An attorney representing electronics manufacturers, for example, must follow trade journals and the latest Federal regulations. Attorneys in the Department of State must remain well versed in current events and international law, while divorce lawyers read about the changing role of the family in modern society. Many law schools and State and local bar associations provide continuing education courses that help lawyers stay abreast of recent developments.

The practice of law involves a great deal of responsibility. Persons planning careers in law should like to work with people and be able to win the respect and confidence of their clients, associates, and the public. Integrity and honesty are vital personal qualities. Perseverance and reasoning ability are essential to analyze complex cases and reach sound conclusions. Lawyers also need creativity when handling new and unique legal problems.

Most beginning lawyers start in salaried positions. Newly hired salaried attorneys usually act as research assistants to experienced lawyers or judges. After several years of progressively more responsible salaried employment, some lawyers are admitted to partnership in their firm, or go into practice for themselves. Some lawyers, after years of practice, become full-time law school faculty or administrators; a growing number have advanced degrees in other fields as well.

Some persons use their legal training in administrative or managerial positions in various departments of large corporations. A transfer from a corporation's legal department to another department often is viewed as a way to gain administrative experience and rise in the ranks of management.

Experience in the practice of law is required, or at least strongly preferred, for most judgeships. All Federal judges and State trial and appellate court judges are required to be lawyers or "learned in law." Some judges with limited jurisdiction are not required to be lawyers, but nonlawyers are being phased out in many States, or the positions are being eliminated. Federal administrative law judges must be lawyers and pass a competitive examination administered by the U.S. Office of Personnel Management. Many State administrative law judges and other hearing officials are not required to be lawyers, but law degrees are preferred for most positions.

Federal judges are appointed for life by the President, with the consent of the Senate. Federal administrative law judges are appointed by the various Federal agencies with virtually lifetime tenure. About half of all State judges are appointed, while the remainder are elected

in partisan or nonpartisan State elections. Most State and local judges serve fixed terms, which range from 4 or 6 years for most limited jurisdiction judgeships to as long as 14 years for some appellate court judges. Judicial nominating commissions, composed of members of the bar and the public, are used to screen candidates for judgeships in many States, as well as for Federal judgeships.

### Job Outlook

Persons seeking positions as lawyers or judges should encounter competition through the year 2005, although for lawyer positions it is expected to gradually lessen as employment grows. The prestige associated with serving as a judge should insure continued intense competition for openings on the bench. Public concerns about crime, safety, and efficient administration of justice should cause employment of judges to increase about as fast as the average for all occupations through the year 2005.

Employment of lawyers has grown very rapidly since the early 1970's, and is expected to continue to grow faster than the average for all occupations through the year 2005. Increased population and growing business activity will help sustain the strong growth in demand for lawyers. This demand also will be spurred by growth of legal action in such areas as employee benefits, consumer protection, criminal prosecution, the environment, and finance, and an anticipated increase in the use of legal services by middle-income groups through legal clinics and prepaid legal service programs.

Rapid growth in the Nation's requirements for lawyers is expected to bring job openings into rough balance with the relatively stable number of law school graduates each year, which will gradually ease competition for jobs through the year 2005. During the 1970's, the annual number of law school graduates more than doubled, even outpacing the rapid growth of jobs. Growth in the yearly number of law school graduates tapered off during the 1980's, but, nevertheless, the number remains at a level high enough to strain the economy's capacity to absorb them. Although graduates with superior academic records from well-regarded law schools will continue to enjoy excellent opportunities, most graduates will encounter competition for jobs.

Turnover among lawyers and judges is low because they are generally well paid, enjoy considerable social status, and have made a substantial educational investment for entry into the field. Nevertheless, the majority of job openings will stem from the need to replace lawyers and judges who transfer to other occupations or retire or stop working for other reasons.

Employment growth of lawyers will continue to be concentrated in salaried jobs, as businesses and all levels of government employ a growing number of staff attorneys, and as employment in the legal services industry is increasingly concentrated in larger law firms. The number of self-employed lawyers is expected to continue to increase slowly, reflecting the difficulty of establishing a profitable new practice in the face of competition from larger, established law firms. Also, the growing complexity of law—which encourages specialization—and the cost of maintaining up-to-date legal research materials both favor larger firms.

Large national and regional law firms will continue to be selective in hiring new lawyers for associate positions that offer the potential for partnership status. Graduates of prestigious law schools and those who rank high in their classes should have the best opportunities for such positions. Graduates of less prominent schools and those with lower scholastic ratings may experience difficulty in securing associate positions with partnership potential but should experience an easing of competition for positions with smaller law firms, and for salaried jobs on the legal staffs of corporations and government agencies. As in the past, some graduates may continue to be forced to accept positions for which they are overqualified or in areas outside their field of interest. They may have to enter fields where legal training is an asset but not normally a requirement. For example, banks, insurance firms, real estate companies, government agencies, and other organizations seek law graduates to fill many administrative, managerial, and business positions.

Due to the competition for jobs, a law graduate's geographic mobility and work experience assume greater importance. The will-

ingness to relocate may be an advantage in getting a job, but to be licensed in a new State, a lawyer may have to take an additional State bar examination. In addition, employers increasingly seek graduates who have advanced law degrees and experience in a particular field such as tax, patent, or admiralty law.

Establishing a new practice probably will continue to be easiest in small towns and expanding suburban areas, as long as an active market for legal services already exists. In such communities, competition from larger established law firms is likely to be less than in big cities, and new lawyers may find it easier to become known to potential clients; also, rent and other business costs are somewhat lower. Nevertheless, starting a new practice will remain an expensive and risky undertaking that should be weighed carefully. Most salaried positions will remain in urban areas where government agencies, law firms, and big corporations are concentrated.

Some lawyers are adversely affected by cyclical swings in the economy. During recessions, the demand for some discretionary legal services, such as planning estates, drafting wills, and handling real estate transactions, declines. Also, corporations are less likely to litigate cases when declining sales and profits result in budgetary restrictions. Although few lawyers actually lose their jobs during these times, earnings may decline for many. Some corporations and law firms will not hire new attorneys until business improves. Several factors, however, mitigate the overall impact of recessions on lawyers. During recessions, individuals and corporations face other legal problems, such as bankruptcies, foreclosures, and divorces, that require legal action. Furthermore, new laws and legal interpretations will create new opportunities for lawyers.

### Earnings

Annual salaries of beginning lawyers in private industry averaged about \$47,000 in 1990, but top graduates from the Nation's best law schools started in some cases at over \$80,000 a year. In the Federal Government, annual starting salaries for attorneys in 1990 were about \$25,000 or \$31,000, depending upon academic and personal qualifications. Factors affecting the salaries offered to new graduates include: Academic record; type, size, and location of employer; and the desired specialized educational background. The field of law makes a difference, too. Patent lawyers, for example, generally are among the highest paid attorneys.

Salaries of experienced attorneys also vary widely according to the type, size, and location of their employer. The average salary of the most experienced lawyers in private industry in 1990 was over \$120,000, but some senior lawyers who were partners in the Nation's top law firms earned over \$1 million. General attorneys in the Federal Government averaged around \$53,300 a year in 1990; the relatively small number of patent attorneys in the Federal Government averaged around \$62,700.

Lawyers on salary receive increases as they assume greater responsibility. Lawyers starting their own practice may need to work part time in other occupations during the first years to supplement their income. Their incomes usually grow as their practices develop. Lawyers who are partners in law firms generally earn more than those who practice alone.

Federal trial court judges had salaries of \$125,100 in 1991, while appellate court judges earned \$132,700 a year. Federal judges with limited jurisdiction, such as magistrates and bankruptcy court judges, had salaries of \$115,100 in 1991. Full-time Federal administrative law judges had average salaries of \$72,300 in 1990.

Annual salaries of State trial court judges averaged nearly \$77,500 in 1991, according to a survey by the National Center for State Courts, and ranged from about \$55,200 to \$100,000. Salaries of State appellate court judges averaged nearly \$85,300, but ranged from \$67,500 to \$113,400. Salaries of State judges with limited jurisdiction varied widely; some part-time judges were paid as little as \$500 a year in 1991, while some who worked full-time earned as much as \$98,000 annually.

Most salaried lawyers and judges were provided health and life insurance, and contributions were made on their behalf to retirement plans. Lawyers who practiced independently were only covered by such benefits if they arranged and paid for them themselves.



## Related Occupations

Legal training is useful in many other occupations. Some of these are paralegal, arbitrator, journalist, patent agent, title examiner, legislative assistant, lobbyist, FBI special agent, political office holder, and corporate executive.

## Sources of Additional Information

The American Bar Association annually publishes *A Review of Legal Education in the United States*, which provides detailed information on each of the 175 law schools approved by the ABA, State requirements for admission to legal practice, a directory of State bar examination administrators, and other information on legal education. Single copies are free from the ABA, but there is a fee for multiple copies. Free information on the bar examination, financial aid for law students, and law as a career may also be obtained from:

• Information Services, American Bar Association, 750 North Lake Shore Dr., Chicago, IL 60611.

Information on legal education and applying to law school is available from:

• Association of American Law Schools, 1201 Connecticut Ave. NW., Suite 800, Washington, DC 20036.

Information on the LSAT, the Law School Data Assembly Service, and financial aid for law students may be obtained from:

• Law School Admission Services, Box 2000, Newtown, PA 18940.

The specific requirements for admission to the bar in a particular State or other jurisdiction may also be obtained at the State capital from the clerk of the Supreme Court or the administrator of the State Board of Bar Examiners.

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## Paralegals

(D.O.T. 119.267-022 and -026)

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### Nature of the Work

Not all legal work requires a law degree. Lawyers are often assisted in their work by paralegals—also called “legal assistants”—who perform many of the same tasks as lawyers, except for those tasks considered to be the practice of law.

Paralegals work directly under the supervision of a lawyer. While the lawyer assumes responsibility for the paralegal's work, a paralegal is often allowed to perform all the functions of a lawyer other than accepting clients, setting legal fees, giving legal advice, or presenting a case in court.

Paralegals generally do background work for lawyers. To help prepare a case for trial, a paralegal investigates the facts of the case to make sure that all relevant information is uncovered. The paralegal may conduct research to identify the appropriate laws, judicial decisions, legal articles, and other material that will be used to determine whether or not the client has a good case. After analyzing all the information, the paralegal may prepare a written report that is used by the attorney to decide how the case should be handled. Should the attorney decide to file a lawsuit on behalf of the client, the paralegal may assist in the preparation of legal arguments, draft pleadings to be filed with the court, obtain affidavits, and assist the attorney during the trial. The paralegal also may keep files of all documents and correspondence important to the case.

Besides litigation, paralegals may also work in areas such as bankruptcy, corporate law, criminal law, employee benefits, patent and copyright law, and real estate. They help draft documents such as contracts, mortgages, separation agreements, and trust instruments. They may help prepare tax returns and plan estates. Some paralegals coordinate the activities of the law office employees and keep the financial records for the office.

Paralegals who work for corporations help attorneys with such matters as employee contracts, shareholder agreements, stock option plans, and employee benefit plans. They may help prepare and file annual financial reports, maintain corporate minute books and resolutions, and help secure loans for the corporation. Paralegals may also

review government regulations to make sure that the corporation operates within the law.

The duties of paralegals who work in government vary depending on the type of agency that employs them. Generally, paralegals in government analyze legal material for internal use, maintain reference files, conduct research for attorneys, collect and analyze evidence for agency hearings, and prepare informative or explanatory material on the law, agency regulations, and agency policy for general use by the agency and the public.

Paralegals employed in community legal service projects help the poor, the aged, and other persons in need of legal aid. They file forms, conduct research, and prepare documents. When authorized by law, they may represent clients at administrative hearings.

Some paralegals, usually those in small and medium-sized law firms, have varied duties. One day the paralegal may do research on judicial decisions on improper police arrests and the next day may help prepare a mortgage contract. This requires a general knowledge of many areas of the law.

Some paralegals work for large, departmentalized law firms, government agencies, and corporations and specialize in one area of the law. Some specialties are real estate, estate planning, family law, labor law, litigation, and corporate law. Even within specialties, functions often are broken down further so that a paralegal deals with one narrow area of the specialty. For example, paralegals who specialize in labor law may deal exclusively with employee benefits.

A growing number of paralegals are using computers in their work. Computer software packages are increasingly used to search legal literature stored in the computer and identify legal texts relevant to a specific subject. In litigation that involves many supporting documents, paralegals may use computers to organize and index the material. Paralegals may also use computer software packages to perform tax computations and explore the consequences of possible tax strategies for clients.

### Working Conditions

Paralegals do most of their work at desks in offices and law libraries. Occasionally, they travel to gather information and perform other duties.

Paralegals employed by corporations and government work a standard 40-hour week. Although most paralegals work year round, some are temporarily employed during busy times of the year then released when work diminishes. Paralegals who work for law firms sometimes work very long hours when they are under pressure to meet deadlines. Some law firms reward such loyalty with bonuses and additional time off.

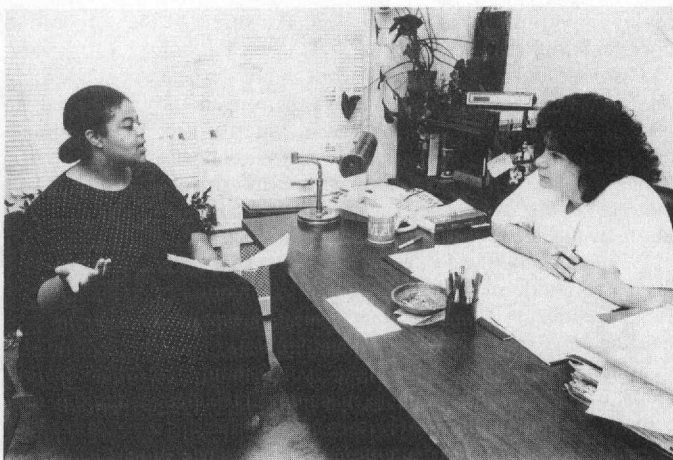
Paralegals handle many routine assignments, particularly when they are inexperienced. Some find that these assignments offer little challenge and become frustrated with their duties. However, paralegals usually assume more responsible and varied tasks as they gain experience. Furthermore, as new laws and judicial interpretations emerge, paralegals are exposed to many new legal problems that make their work more interesting and challenging.

### Employment

Paralegals held about 90,000 jobs in 1990. Private law firms employed the vast majority; most of the remainder worked for various levels of government. Paralegals are found in nearly every Federal Government agency; the Departments of Justice, Treasury, Interior, and Health and Human Services, and the General Services Administration are the largest employers. State and local governments and publicly funded legal service projects employ paralegals as well. Banks, real estate development companies, and insurance companies also employ small numbers of paralegals.

### Training, Other Qualifications, and Advancement

There are several ways to enter the paralegal profession. Employers generally require formal paralegal training; several types of training programs are acceptable. However, some employers prefer to train their paralegals on the job, promoting experienced legal secretaries or hiring persons with college education but no legal experience. Other entrants have experience in a technical field that is useful



*Paralegals do legal research and investigate facts to help lawyers prepare cases for trial.*

to law firms, such as a background in tax preparation for tax and estate practice or nursing or health administration for personal injury practice.

Over 600 formal paralegal training programs are offered by 4-year colleges and universities, law schools, community and junior colleges, business schools, and proprietary schools. In 1991, over 150 programs had been approved by the American Bar Association (ABA). Although this approval is neither required nor sought by many programs, graduation from an ABA-approved program can enhance one's employment opportunities. The requirements for admission to formal training programs vary widely. Some require some college courses or a bachelor's degree. Others accept high school graduates or persons with legal experience. A few schools require standardized tests and personal interviews.

Most paralegal programs are completed in 2 years, although some take as long as 4 years and award a bachelor's degree upon completion. Other programs take only a few months to complete, but require a bachelor's degree for admission. Programs typically include a combination of general courses on subjects such as the law and legal research techniques, and courses that cover specialized areas of the law, such as real estate, estate planning and probate, litigation, family law, contracts, and criminal law. Many employers prefer applicants with training in a specialized area of the law. Programs also increasingly include courses that introduce students to the legal applications of computers. Many paralegal training programs include an internship in which students gain practical experience by working for several months in a law office, corporate legal department, or government agency. Experience gained in internships is an asset when seeking a job after graduation. Depending on the program, graduates may receive a certificate, an associate degree, or, in some cases, a bachelor's degree.

The quality of paralegal training programs varies; the better programs generally emphasize job placement. Prospective students should examine the experiences of recent graduates of programs in which they are considering enrolling.

Paralegals need not be certified, but the National Association of Legal Assistants has established standards for voluntary certification which require various combinations of education and experience. Paralegals who meet these standards are eligible to take a 2-day examination given each year at several regional testing centers by the Certifying Board of Legal Assistants of the National Association of Legal Assistants. Persons who pass this examination may use the designation Certified Legal Assistant (CLA). This designation is a sign of competence in the field and may enhance employment and advancement opportunities.

Paralegals must be able to handle legal problems logically and effectively communicate, both orally and in writing, their findings and opinions to their supervising attorney. They must understand legal terminology and have good research and investigative skills. Familiarity with the operation and applications of computers in legal

research and litigation support is increasingly important. Paralegals must always stay abreast of new developments in the law that affect their area of practice.

Because paralegals often deal with the public, they must be courteous and uphold the high ethical standards of the legal profession. A few States have established ethical guidelines that paralegals in the State must follow.

Experienced paralegals usually are given progressively more responsible duties and less supervision. In large law firms, corporate legal departments, and government agencies, experienced paralegals may supervise other paralegals and clerical staff and delegate work assigned by the attorneys. Advancement opportunities include promotion to managerial and other law-related positions within the firm or corporate legal department. However, some paralegals find it easier to move to another law firm when seeking increased responsibility or advancement.

### **Job Outlook**

The number of job openings for paralegals is expected to increase significantly through the year 2005, but so will the number of persons pursuing this career. Thus, keen competition for jobs should continue as the growing number of graduates from paralegal training programs keeps pace with employment growth. Still, job prospects are generally expected to be good for graduates of highly regarded formal programs.

Employment of paralegals has grown tremendously since the emergence of this occupation in the late 1960's. Employment is expected to continue to grow much faster than the average for all occupations through the year 2005. The emphasis on hiring paralegals should continue in both legal and law-related fields so that the cost, availability, and efficiency of legal services can be improved. Besides jobs arising from growth in demand for paralegals, numerous job openings are expected to arise as persons leave the occupation for various reasons.

Private law firms will continue to be the largest employers of paralegals as a growing population sustains the need for legal services. The growth of prepaid legal plans also should contribute to the demand for the services of law firms. A growing array of other organizations, such as corporate legal departments, insurance companies, real estate and title insurance firms, and banks will also hire paralegals. Job opportunities are expected to expand throughout the private sector as more companies become aware that paralegals are able to do many legal tasks for lower salaries than lawyers.

Job opportunities for paralegals will expand even in the public sector. Community legal service programs—which provide assistance to the poor, the aged, minorities, and middle-income families—operate on limited budgets and will employ more paralegals to keep expenses down and serve the most people. Federal, State, and local government agencies, consumer organizations, and the courts also should continue to hire paralegals in increasing numbers.

To a limited extent, paralegal jobs are affected by the business cycle. During recessions, the demand for some discretionary legal services, such as planning estates, drafting wills, and handling real estate transactions, declines. Corporations are less inclined to initiate litigation when falling sales and profits lead to fiscal belt tightening. As a result, full time paralegals employed in offices adversely affected by a recession may be laid off or have their work hours reduced. On the other hand, during recessions, corporations and individuals are more likely to face other legal problems, such as bankruptcies, foreclosures, and divorces, that require legal solutions. Furthermore, the continuous emergence of new laws and judicial interpretations of existing laws creates new business for lawyers and paralegals without regard to the business cycle.

### **Earnings**

Earnings of paralegals vary greatly. Salaries depend on the education, training, and experience the paralegal brings to the job, the type and size of employer, and the geographic location of the job. Generally, paralegals who work for large law firms or in large metropolitan areas earn more than those who work for smaller firms or in less populated regions.



Paralegals had an average annual salary of about \$24,900 in 1991, according to a utilization and compensation survey by the National Association of Legal Assistants; the middle 50 percent earned between \$20,000 and \$29,000 a year. Starting salaries of paralegals averaged \$20,900, while paralegals with from 3 to 5 years of experience averaged \$24,200 a year. Salaries of paralegals with over 10 years of experience averaged \$28,500 annually, according to the same survey. In addition to a salary, many paralegals received an annual bonus, which averaged \$1,100 in 1991. Employers of the majority of paralegals provided life and health insurance benefits and contributed to a retirement plan on their behalf.

Paralegal Specialists hired by the Federal Government in 1991 started at about \$17,000 or \$21,000 a year, depending on their training and experience. The average annual salary of paralegals who worked for the Federal Government in 1990 was about \$32,164.

### **Related Occupations**

Several other occupations also call for a specialized understanding of the law and the legal system but do not require the extensive training of a lawyer. Some of these are abstractors, claim examiners, compliance and enforcement inspectors, occupational safety and health workers, patent agents, police officers, and title examiners.

### **Sources of Additional Information**

General information on a career as a paralegal and a list of paralegal training programs approved by the American Bar Association may be purchased for a \$5 fee from:

☛ Standing Committee on Legal Assistants, American Bar Association, 750 North Lake Shore Dr., Chicago, IL 60611.

For information on certification of paralegals, schools that offer training programs in a specific State, and standards and guidelines for paralegals, contact:

☛ National Association of Legal Assistants, Inc., 1601 South Main St., Suite 300, Tulsa, OK 74119.

Information on a career as a paralegal, schools that offer training programs, and local paralegal associations can be obtained from:

☛ National Federation of Paralegal Associations, Suite 201, 104 Wilmot Rd., Deerfield, IL 60015-5195.

☛ National Paralegal Association, P.O. Box 406, Solebury, PA 18963.

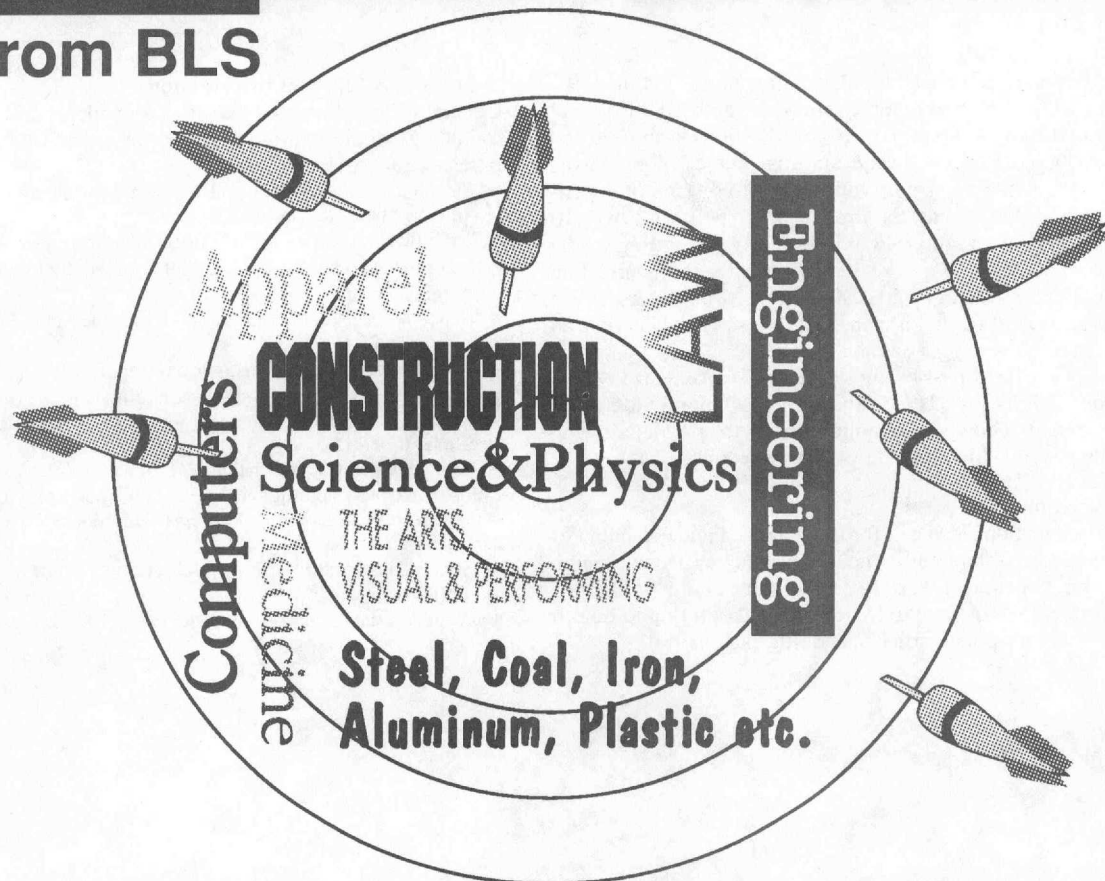
Information on paralegal training programs may be obtained from:

☛ American Association for Paralegal Education, P.O. Box 40244, Overland Park, KS 66204.

General information about a career as a legal assistant manager is available from:

☛ Legal Assistant Management Association, P.O. Box 40129, Overland Park, KS 66204.

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