

holders may find jobs as psychological assistants or counselors providing mental health services under the direct supervision of a licensed psychologist. Still others may find jobs involving research and data collection and analysis in universities, government, or private companies.

Very few opportunities directly related to psychology will exist for bachelor's degree holders. 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.

Earnings

Median annual earnings of salaried psychologists were \$48,596 in 2000. Median annual earnings were \$48,320 for clinical, counseling, and school psychologists and \$66,880 for industrial-organizational psychologists. Median annual earnings in the industries employing the largest numbers of psychologists in 2000 were as follows:

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| Hospitals | \$52,460 |
| Elementary and secondary schools | 51,310 |
| Offices of other health practitioners | 50,990 |
| Offices and clinics of medical doctors | 47,890 |
| Individual and family services | 35,720 |

The Federal Government recognizes education and experience in certifying applicants for entry-level positions. In general, the starting salary for psychologists having a bachelor's degree was about \$21,900 in 2001; those with superior academic records could begin at \$27,200. Psychologists with a master's degree and 1 year of experience could start at \$33,300. Psychologists having a Ph.D. or Psy.D. degree and 1 year of internship could start at \$40,200, and some individuals with experience could start at \$48,200. Beginning salaries were slightly higher in selected areas of the country where the prevailing local pay level was higher. The average annual salary for psychologists in the Federal Government was \$72,830 in 2001.

Related Occupations

Psychologists are trained to conduct research and teach, evaluate, counsel, and advise individuals and groups with special needs. Others who do this kind of work include clergy, counselors, physicians and surgeons, social workers, sociologists, and special education teachers.

Sources of Additional Information

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

► American Psychological Association, Research Office and Education in Psychology and Accreditation Offices, 750 1st St. NE., Washington, DC 20002. Internet: <http://www.apa.org>

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

► National Association of School Psychologists, 4030 East West Hwy., Suite 402, Bethesda, MD 20814. Internet: <http://www.nasponline.org>

Information about State licensing requirements is available from:

► Association of State and Provincial Psychology Boards, P.O. Box 241245, Montgomery, AL 36124-1245. Internet: <http://www.asppb.org>

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

Urban and Regional Planners

(O*NET 19-3051.00)

Significant Points

- Most entry-level jobs require a master's degree, although a bachelor's degree and related work experience is sufficient for some positions.
- Most new jobs will arise in more affluent, rapidly growing urban and suburban communities.

Nature of the Work

Planners develop long- and short-term land use plans to provide for growth and revitalization of urban, suburban, and rural communities, while helping local officials make decisions concerning social, economic, and environmental problems. Because local governments employ the majority of urban and regional planners, they often are referred to as community, regional, or city planners.

Planners promote the best use of a community's land and resources for residential, commercial, institutional, and recreational purposes. Planners may be involved in various other activities, including decisions on alternative public transportation system plans, resource development, and protection of ecologically sensitive regions. They address issues such as traffic congestion, air pollution, and the effect of growth and change on a community. They may formulate plans relating to the construction of new school buildings, public housing, or other infrastructure. Some planners are involved in environmental issues ranging from pollution control to wetland preservation, forest conservation, or the location of new landfills. Planners also may be involved with drafting legislation on environmental, social, and economic issues, such as sheltering the homeless, planning a new park, or meeting the demand for new correctional facilities.

Planners examine proposed community facilities such as schools to be sure these facilities will meet the changing demands placed upon them over time. They keep abreast of economic and legal issues involved in zoning codes, building codes, and environmental regulations. They ensure that builders and developers follow these codes and regulations. Planners also deal with land use issues created by population movements. For example, as suburban growth and economic development create more new jobs outside cities, the need for public transportation that enables workers to get to these jobs increases. In response, planners develop transportation models for possible implementation and explain their details to planning boards and the general public.

Before preparing plans for community development, planners report on the current use of land for residential, business, and community purposes. These reports include information on the location and capacity of streets, highways, airports, water and sewer lines, schools, libraries, and cultural and recreational sites. They also provide data on the types of industries in the community, characteristics of the population, and employment and economic trends. With this information, along with input from citizens' advisory committees, planners design the layout of land uses for buildings and other facilities such as subway lines and stations. Planners prepare reports showing how their programs can be carried out and what they will cost.

Planners use computers to record and analyze information and to prepare reports and recommendations for government executives and others. Computer databases, spreadsheets, and analytical techniques are widely used to project program costs and forecast future trends in employment, housing, transportation, or population. Computerized geographic information systems enable planners to map



Urban and regional planners use computers to record and analyze information and to prepare reports and recommendations.

land areas and overlay maps with geographic variables, such as population density, as well as to combine and manipulate geographic information to produce alternative plans for land use or development.

Urban and regional planners often confer with land developers, civic leaders, and public officials. They may function as mediators in community disputes and present alternatives acceptable to opposing parties. Planners may prepare material for community relations programs, speak at civic meetings, and appear before legislative committees and elected officials to explain and defend their proposals.

In large organizations, planners usually specialize in a single area such as transportation, demography, housing, historic preservation, urban design, environmental and regulatory issues, or economic development. In small organizations, planners must be able to do various kinds of planning.

Working Conditions

Urban and regional planners often are required to travel to inspect the features of land under consideration for development or regulation, including its current use and the types of structures on it. Some local government planners involved in site development inspections spend most of their time in the field. 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, as well as political pressure generated by interest groups affected by land use proposals.

Employment

Urban and regional planners held about 30,000 jobs in 2000. About 7 out of 10 were employed by local governments. Companies involved with research and testing or management and public relations employ an increasing proportion of planners in the private sector. Others are employed in State agencies dealing with housing, transportation, or environmental protection, and a small number work for the Federal Government.

Training, Other Qualifications, and Advancement

For jobs as urban and regional planners, employers prefer workers who have advanced training. Most entry-level jobs in Federal, State, and local government agencies require a master's degree in urban or regional planning, urban design, geography, or a similar course

of study. A bachelor's degree from an accredited planning program, coupled with a master's degree in architecture, landscape architecture, or civil engineering, is good preparation for entry-level planning jobs in areas such as urban design, transportation, or the environment. A master's degree from an accredited planning program provides the best training for a number of planning fields. Although graduates from one of the limited number of accredited bachelor's degree programs qualify for many entry-level positions, their advancement opportunities often are limited unless they acquire an advanced degree.

Courses in related disciplines such as architecture, law, earth sciences, demography, economics, finance, health administration, geographic information systems, and management are highly recommended. In addition, familiarity with computer models and statistical techniques is necessary.

In 2001, about 80 colleges and universities offered an accredited master's degree program, and about 10 offered an accredited bachelor's degree program in urban or regional planning. These programs are accredited by the Planning Accreditation Board, which consists of representatives of the American Institute of Certified Planners, the American Planning Association, and the Association of Collegiate Schools of Planning. Most graduate programs in planning require a minimum of 2 years.

Specializations most commonly offered by planning schools are environmental planning, land use and comprehensive planning, economic development, housing, historic preservation, and social planning. Other popular offerings include community development, transportation, and urban design. Graduate students spend considerable time in studios, workshops, and laboratory courses learning to analyze and solve planning problems. They often are required to work in a planning office part time or during the summer. Local government planning offices frequently offer students internships, providing experience that proves invaluable in obtaining a full-time planning position after graduation.

The American Institute of Certified Planners (AICP), a professional institute within the American Planning Association (APA), grants certification to individuals who have the appropriate combination of education and professional experience and pass an examination. Certification may be helpful for promotion.

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

After a few years of experience, 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 and budget options. Some public sector planners are promoted to community planning director and spend a great deal of time meeting with officials, speaking to civic groups, and supervising a staff. Further advancement occurs through a transfer to a larger jurisdiction with more complex problems and greater responsibilities, or into related occupations, such as director of community or economic development.

Job Outlook

Employment of urban and regional planners is expected to grow about as fast as the average for all occupations through 2010. Employment growth will be driven by the need for State and local governments to provide public services such as regulation of commercial development, the environment, transportation, housing, and land use and development. Nongovernmental initiatives dealing with historic preservation and redevelopment will provide additional

openings. Some job openings also will arise from the need to replace experienced planners who transfer to other occupations, retire, or leave the labor force for other reasons.

Most planners work for local governments with limited resources and many demands for services. When communities need to cut expenditures, planning services may be cut before more basic services such as police or education. As a result, the number of openings in private industry for consulting positions is expected to grow more rapidly than the number of openings in government.

Most new jobs for urban and regional planners will arise in more affluent, rapidly expanding communities. Local governments need planners to address an array of 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. Small town chambers of commerce, economic development authorities, and tourism bureaus may hire planners, preferring candidates with some background in marketing and public relations.

Earnings

Median annual earnings of urban and regional planners were \$46,500 in 2000. The middle 50 percent earned between \$36,510 and \$57,900. The lowest 10 percent earned less than \$29,890, and the highest 10 percent earned more than \$72,090. Median annual earnings in local government, the industry employing the largest numbers of urban and regional planners, were \$45,300.

Related Occupations

Urban and regional planners develop plans for the growth of urban, suburban, and rural communities. Others whose work is similar include architects, civil engineers, environmental engineers, landscape architects, and geographers.

Sources of Additional Information

Information on careers, salaries, and certification in urban and regional planning is available from:

- ▶ American Planning Association, Education Division, 122 South Michigan Ave., Suite 1600, Chicago, IL 60603-6107. Internet: <http://www.planning.org>

Social Scientists, Other

(O*NET 19-3041.00, 19-3091.01, 19-3091.02, 19-3092.00, 19-3093.00, 19-3094.00)

Significant Points

- Educational attainment of social scientists is among the highest of all occupations.
- Job opportunities are expected to be best in social service agencies, research and testing services, and management consulting firms.

Nature of the Work

The major social science occupations covered in this statement include anthropologists, archaeologists, geographers, historians, political scientists, and sociologists. (Economists, psychologists, and urban and regional planners are covered elsewhere in the *Handbook*.)

Social scientists study all aspects of society—from past events and achievements to human behavior and relationships between groups. Their research provides insights that help us understand different ways in which individuals and groups make decisions, exercise power, and respond to change. Through their studies and

analyses, social scientists suggest solutions to social, business, personal, governmental, and environmental problems.

Research is a major activity for many social scientists. They use various methods to assemble facts and construct theories. 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. Information collection takes many forms including living and working among the population being studied; field investigations, the analysis of historical records and documents; experiments with human or animal subjects in a laboratory; administration of standardized tests and questionnaires; and preparation and interpretation of maps and computer graphics. The work of the major specialties in social science—other than psychologists, economists, and urban and regional planners—varies greatly, although, specialists in one field may find that their research overlaps work being conducted in another discipline.

Anthropologists study the origin and the physical, social, and cultural development and behavior of humans. They may study the way of life, archaeological remains, language, or physical characteristics of people in various parts of the world. Some compare the customs, values, and social patterns of different cultures. Anthropologists usually concentrate in sociocultural anthropology, archaeology, linguistics, or biological-physical anthropology. Sociocultural anthropologists study customs, cultures, and social lives of groups in settings that vary from unindustrialized societies to modern urban centers.

Archaeologists recover and examine material evidence, such as ruins, tools, and pottery remaining from past human cultures in order to determine the history, customs, and living habits of earlier civilizations. Linguistic anthropologists study the role and changes over time of language in various cultures. Biological-physical anthropologists study the evolution of the human body, look for the earliest evidences of human life, and analyze how culture and biology influence one another. Most anthropologists specialize in one particular region of the world.

Geographers analyze distributions of physical and cultural phenomena on local, regional, continental, and global scales. Economic geographers study the distribution of resources and economic activities. Political geographers are concerned with the relationship of geography to political phenomena, whereas cultural geographers study the geography of cultural phenomena. Physical geographers study variations in climate, vegetation, soil, and landforms, and their implications for human activity. Urban and transportation geographers study cities and metropolitan areas, while regional geographers study the physical, economic, political, and cultural characteristics of regions, ranging in size from a congressional district to entire continents. Medical geographers study health care delivery systems, epidemiology (the study of the causes and control of epidemics), and the effect of the environment on health. (Some occupational classification systems include geographers under physical scientists rather than social scientists.)

Historians research, analyze, and interpret the past. They use many sources of information in their research, including government and institutional records, newspapers and other periodicals, photographs, interviews, films, and unpublished manuscripts such as personal diaries and letters. Historians usually specialize in a country or region; a particular time period; or a particular field, such as social, intellectual, cultural, political, or diplomatic history. Biographers collect detailed information on individuals. Other historians help study and preserve archival materials, artifacts, and historic buildings and sites.

Political scientists study the origin, development, and operation of political systems and public policy. They conduct research on a