

Geography BA+MA

Binghamton University's Department of Geography specializes in applied geography, especially GIS (geographic information system), urban planning, and geography of "race, ethnicity and place." The department has an excellent GIS facility. The department's web site has career resources, and it links to a national association with good career resources. The department's master's graduates have done very well in the job market. For example, several work in city, county and state urban/land use planning departments; others use their GIS training as civilians in government/military agencies. As globalization continues and human populations spread, the need for geographers with the knowledge and skills that this department emphasizes will increase.

Geography Dept's career resources:

<http://geography.binghamton.edu/html/Career%20Resources.htm>

Some examples of jobs (copied from Association of American Geographers

<https://communicate.aag.org/eseries/scriptcontent/custom/giwis/cguide/>)

Geographic Information System Specialist - A geographic information system (GIS) is a computer hardware and software system that is used to store, display, analyze, and map information. Geographers, planners, land developers, real estate agents, utility companies, and municipal officials all use these systems. In fact, modern planning cannot move forward without these systems and those trained to run them. For example, a local government might use a GIS to evaluate alternative locations for roads, landfills, or other facilities. Using the GIS, such topics as population distribution, traffic movement, land availability, real estate prices, environmental hazards, soil types, and flood zones could be analyzed together to help the government make an informed choice. Jobs are available for those who like to work with computers and understand the importance of information retrieval.

Remote-Sensing Analyst - Another important area of mapping is remote sensing. This involves the interpretation of aerial photos and the analysis of satellite images. Virtually all modern maps of large areas are based in part on remote sensing, among them the land use maps used by the U.S. Geological Survey and the soil maps used by the Department of Agriculture. The Department of Defense, the State Department, and the Central Intelligence Agency employ thousands of people to interpret photos that have been taken by high-flying aircraft or satellites to determine what is going on in other countries. For example, during the Cold War, we learned a lot about crop production, military troop movements, missile launches, and nuclear testing in the Soviet Union through the work of remote-sensing analysts. Remote-sensing analysts should have training in geography and earth science and good visual skills.

Community Developer - Many communities have drawn up plans for the redevelopment of their town centers, often with federal assistance. These areas are being rebuilt with an eye to history: research into the earlier nature of the downtown area is carried out, and that architectural and economic information is then woven into the development plan.

Redevelopment programs, among them a very promising one called Main Street, U.S.A., use the expertise of geographers, historians, politicians, economists, and businesspeople.

Coastal Zone Manager - The zone where land and ocean meet is critical for both humans and wildlife. Such environmentally sensitive areas as marshlands, bays, and river mouths have to adjust to the onslaughts of cities, ports, industries, roads, and thousands of pleasure-seeking tourists. Geographers can make a major contribution by helping to plan and manage the coastal zone. The job of the coastal zone manager often dovetails with the work of the oceanographer in their mutual concern for the continental shelf (the gently sloping submarine plain that borders the continent), particularly when faced with such man-made disasters as oil spills.

Hydrologist - Hydrologists study sources of water and prepare plans for the wise long-term use of this critical resource. In the drier areas of the United States, the availability of water is crucial for agriculture, municipal uses, and recreation. Some of this water comes from surface sources, such as rivers and lakes, but some comes from underground aquifers (water-bearing rock strata). Even where water is not scarce, problems with groundwater contamination and flooding require the expertise of hydrologists. Hydrologists may be employed by governments at any level or in the private sector.

Area Specialist - Area specialists study specific countries or areas of the world. This type of job generally requires a good knowledge of the appropriate language and a thorough understanding of the culture and daily life of the area's inhabitants. Typically, an area specialist might be employed by a U.S. government agency, such as the State Department or the Central Intelligence Agency. Area specialists collect information from newspapers, radio broadcasts, television news shows, magazines, government documents, aerial photos, and the reports of intelligence agents. They brief diplomats and State Department officials and provide data used in speeches by the President, Cabinet Officers, and other key government officials. Often, information supplied by area specialists is used to help the government set policy or take positions on key issues.

Urban and Community Planner - Urban and community planners work to make cities pleasant and attractive places in which to live and work, taking into account zoning, traffic patterns, building density, recreational facilities, and the management of waste materials and water. They try to organize streets and the flow of traffic to avoid congestion. They try to plan for recreation so that everyone will have access to parks and open spaces. Planners work closely with builders to make sure that cities develop within the limits of the master plan. They need lots of geographical information to do all this. Most planners have bachelor's or higher degrees, and some have to pass a national exam. Urban and regional planning programs are available at some universities. Often, students take courses in public administration or public finance, as well as geography.