

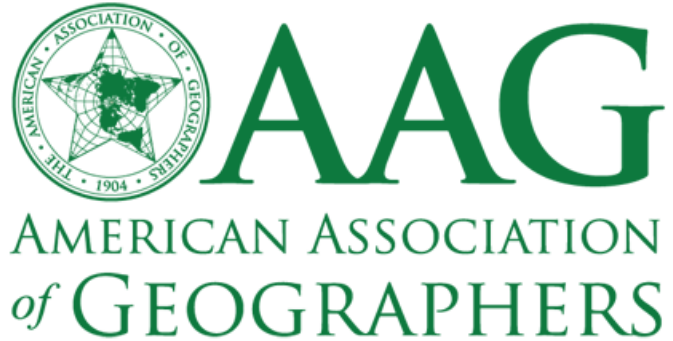
YOUR MOM SAID YOU SHOULD MAJOR IN SOMETHING THAT WILL GET YOU A GOOD JOB. YOU REALLY DO WANT A GOOD JOB AFTER YOU GRADUATE. BUT DON'T YOU WANT TO DO SOMETHING YOU LOVE? WHAT IF YOU COULD DO BOTH? WHAT IF YOU COULD ENJOY YOUR WORK, GET PAID FOR IT, AND HAVE A REAL IMPACT ON THE WORLD? AFTER ALL, WE ALL WANT TO MAKE A DIFFERENCE.

YOU REALLY DO KNOW WHERE YOU WANT TO GO.

GEOGRAPHY
CAN TAKE YOU THERE.

For more information about Careers in Geography, go to www.aag.org.





Physical Geography at MTSU

Think about some of the biggest challenges facing the human race today. How do we respond to Climate Change? How do we prepare for natural hazards and rebuild after they strike? How can we switch to clean, sustainable sources of energy given our current reliance on fossil fuels? How can we feed the Earth's population in a sustainable manner both today and in the future? These are all geographic questions, and the department of Geosciences at MTSU can prepare you to help address these challenges. The department houses the Physical Geography major which covers the physical component of the field of geography and geographic technologies. With a physical geography major and a background in geographic technologies like GIS, Remote Sensing, and spatial analysis, a huge range of careers are available to you. Earning a Physical Geography degree is a first step to making a meaningful contribution to the solutions we need to protect our future.

Where Do Geographers Work?

Many geographers pursue rewarding careers in education; business; local, state, or federal government agencies; and nonprofit organizations. These sectors can be described as follows:

- **Education** - The education sector includes K-12 institutions, colleges and universities that award at least a two-year degree, continuing education and informal education organizations, and higher education four-year institutions like MTSU.
- **Business** - The business, or private, sector refers to the segment of the economy composed of enterprises owned by individuals or groups. Corporations are accountable to their shareholders and operate at national or international scales.
- **Government** - Applicants new to the public sector, which includes federal, state, and local government, may find the broad, integrative perspective offered by academic training in geography to be an asset. Nearly 2 million civilians—1.8 percent of the U.S. workforce—are employed by the federal government, while state and local governments employ 19.8 million workers. Geography's emphasis on addressing real-world problems and issues is excellent preparation for public sector employment, particularly at the local and state levels.
- **Nonprofit** - Roughly nine percent of the U.S. workforce (12 million individuals) is employed by an estimated 1.4 million nonprofit organizations, whose causes and values span the entire political spectrum. Because nonprofits typically strive to create a better world (as defined by their mission statements), they offer great opportunities for job seekers hoping to make a difference.

(Excerpted and adapted from: Adams, Joy K. 2013. Switching sectors: Transitioning into and among business, government, and nonprofit careers." Chapter 3 of *Practicing Geography: Careers for Enhancing Society and the Environment*, eds. Michael Solem, Kenneth Foote, and Jan Monk. Upper Saddle River, NJ: Pearson Education.)

What Jobs Do Geographers Have?

Geography is unique in bridging the social sciences and the natural sciences. There are two main branches of geography: human geography and physical geography. Physical geographers study patterns of climates, landforms, vegetation, soils, and water. Geographers use many tools and techniques in their work, and geographic technologies are increasingly important for understanding our complex world. They include Geographic Information Systems (GIS), Remote Sensing, Global Positioning Systems (GPS), and online mapping such as Google Earth.

The following is a list of some of the areas of study in Physical Geography at MTSU and jobs that are related to those fields.

Weather, Climate, & Natural Hazards

Knowing and applying geographic information about weather, climate, atmospheric processes, and natural hazards (e.g., hurricanes, floods, earthquakes, fire)

- Emergency Management Specialist
- Ecological Risk Assessor
- Hazards Analyst
- Climate Change Analyst
- Weatherization Installers and Technician
- Atmospheric or Climate Scientist

Health & Biogeography

Knowing and applying geographic information about human health issues, natural ecosystems, and ecological processes

- Public Health Analyst
- Soil and Plant Scientist
- Natural Sciences Manager
- Forester

Geomorphology

Knowing and applying geographic information about geology and the processes that shape physical landscapes (e.g. soils, hydrology, topography, erosion)

- Water Resources Specialist
- Environmental Scientist

Geographic Information Systems, Remote Sensing, and Cartography

Using GIS to acquire, manage, display, analyze spatial data, run spatial statistics, and make maps in digital form. Using various methods related to aerial photography and satellite imaging to capture information about the Earth.

- Geospatial Analyst
- GIS Technician
- Cartographer, both traditional on paper and online and mobile mapping
- Statistical Assistant
- Logistics Analyst
- Transportation Planner/Manager
- Environmental Consultant
- Remote Sensing Scientist/Technician
- Geointelligence Analyst

Spatial Thinking and Human-Environment Interaction

Identifying, explaining, and finding meaning in spatial patterns and relationships in the world, and seeing how our lives interact with the natural world

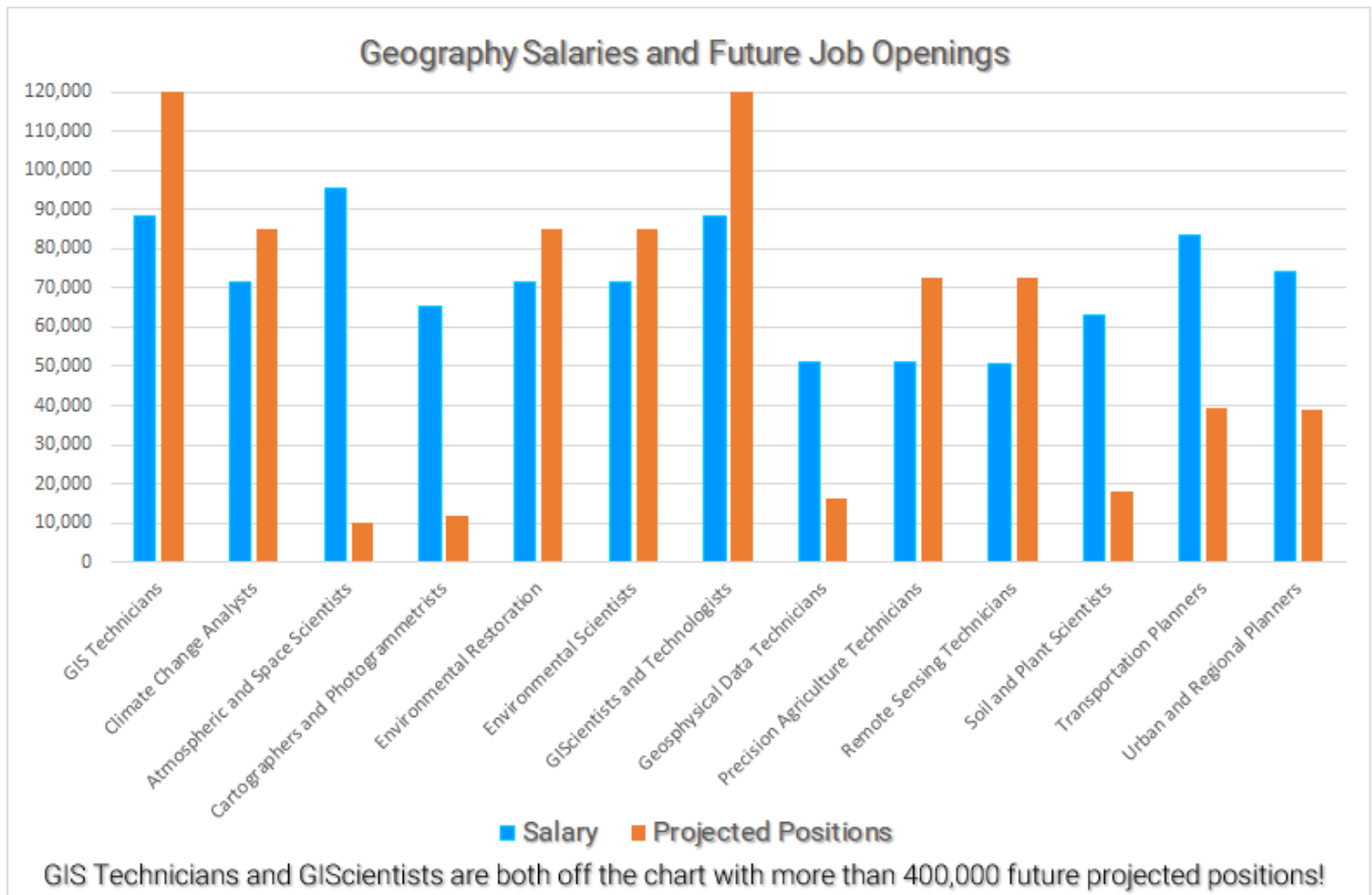
- Geophysical Data Technician
- Spatial Analysis Consultant
- Environmental Specialist
- Manager of Sustainability

(Subdiscipline definitions adapted from: Solem, Michael, Ivan Cheung, and M. Beth Schlemper. Skills in professional geography: An assessment of workforce needs and expectations. *The Professional Geographer* 60, no. 3 (2008): 356-373

2019 Median Salaries for Geoscience-Related Occupations

According to the Bureau of Labor Statistics, median wages for geographers were \$81,970 in 2019. Even the lowest paid 25% of Geographers made \$63,300 annually, exceeding the median wages for all income earners. The chart below shows median salaries in blue, and projected new positions in orange. Jobs related to geographic skills are growing, as evidenced by the new positions being added. This means that your training in Physical Geography at MTSU will leave you well-positioned for a rewarding job with a good salary! Jobs involving the geographic technologies of GIS and Remote Sensing are especially hot, and with the need for geospatial analysis capabilities in virtually all fields of government, the private sector, and the non-profit sector, they show no signs of slowing down.

A Physical Geography degree from the department of Geosciences at MTSU will leave you prepared to join this exciting and growing workforce!



Contact us get started with a career in Physical Geography!

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