





## Critical Needs: Workforce & Education

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# Meeting the Future Demand for Geoscientists

The 300,000 geoscientists<sup>1</sup> currently working in the U.S. private and public sectors help the nation ensure a clean and sustainable water supply; explore, access, and manage its energy and mineral resources both on land and under the sea; monitor, forecast, and mitigate terrestrial and marine natural hazards; support agricultural soil productivity; research land-sea-atmosphere interactions to understand the changing climate; and safely clean up environmental contamination and dispose of waste. By sharing their knowledge with students and the public, geoscientists help to create a society that understands Earth's processes and recognizes resource, hazard, and environmental issues.

The economic demand for geoscientists will continue to grow within the United States and worldwide, yet increasing numbers of U.S. geoscientists are reaching retirement age. AGI estimates a shortage of 135,000 geoscientists within the U.S. economy by 2022.<sup>2</sup> The nation's schools, colleges, and universities must be ready to educate and train this next generation of geoscientists.

## To develop a knowledgeable, experienced, and innovative geoscience workforce:

### **Sustain and grow programs to educate a diverse group of students in science, technology, engineering, and math (STEM).**

Geoscience educators ensure that students across the U.S. at all levels have opportunities to learn about the Earth. They recruit, teach, and retain talented students and encourage them to pursue careers in geoscience and related STEM disciplines.

**Support federal investments in basic and applied geoscience research.** Federally funded research leads to scientific discovery and provides critical educational opportunities for students pursuing geoscience careers.

**Encourage partnerships between industry, government, and universities and colleges.** Private-sector research and development is essential to maintaining America's globally competitive, knowledge-driven economy. Partnerships between government, industry, and higher education promote innovation while enhancing the educational environment and preparing students graduating from U.S. colleges and universities for the workforce.


## References

<sup>1</sup> Wilson, C.E., The Status of the Geoscience Workforce 2014. Alexandria, VA: American Geosciences Institute, 2014.  
[www.americangeosciences.org/workforce/reports/status-report-2014](http://www.americangeosciences.org/workforce/reports/status-report-2014)

<sup>2</sup> Ibid.

## Learn more

- Geoscience for America's Critical Needs: Invitation to a National Policy Dialogue (Webpage and Report), *American Geosciences Institute*

This document outlines high-level actions to address major policy issues where the geosciences play a significant role. 

[Download the report](#)

- AGI's Geoscience Workforce Program (Webpage), *American Geosciences Institute*  
AGI's Geoscience Workforce Program is the preeminent source of geoscience workforce data in the United States. The program promotes the development of a strong workforce for the geosciences through its outreach activities and collaborations across all sectors of the profession.
  - AGI's Education Program (Webpage), *American Geosciences Institute*  
AGI's Education Program offers curriculum materials for grades 6-12, online resources for grades K-5, teacher enhancement programs and educational adjunct materials.
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