

one source

American Geophysical Union

R&D
(2% of total)

Federal
Budget

Investing in Earth and space science research and development saves lives and protects our national security.

Much of the scientific R&D that we rely on to protect public safety in the face of natural and man-made disasters is funded through the U.S. non defense discretionary budget. Federally funded Earth and space science R&D has resulted in:

- Hurricane forecasting, tracking, and landfall prediction that utilize Earth observing satellites, supercomputers, and sensors to provide advance warning, which protects millions of lives and livelihoods each year across the country and around the world. (NOAA/NASA)
- NEXRAD weather surveillance radar, which prevented 330 tornado-related fatalities and 7800 injuries from 1992 to 2004, and increased the average warning time from 5.3 minutes to 9.5 minutes. (NOAA/NWS)
- Earthquake hazard mapping, seismic standards for building design and construction, and increased public awareness of safety procedures which protect 79 million people in 39 states. (USGS)
- Flood mapping methodology for predicting the time of arrival, depth, and extent of flooding before a storm arrives, which saves hundreds of lives each year. (USGS/NWS)

“Good science leads to lives saved.”

- Timothy Manning, Deputy Administrator for Protection and National Preparedness, Federal Emergency Management Agency

Despite its ability to help protect our communities and families, federal funding for scientific R&D has been steadily decreasing. Putting R&D funding in perspective:

- Total U.S. R&D funding is only 2% of the federal budget.
- Funding is at its lowest level in more than a decade.
- The U.S. has fallen from #1 to #8 in the world in R&D investment as a percentage of GDP.

Case Study

Basic research of the Earth's atmosphere led to our understanding of the hole in the ozone layer and made mitigation efforts possible. If the discovery had not been made by the mid-1980s, the ozone depletion level today would likely be over 10%, instead of 4%. For each 1% decline in ozone levels, humans suffer as much as a 2%–3% increase in incidences of certain skin cancers. (National Academy of Sciences)

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Mission: To promote discovery in Earth and space science for the benefit of humanity.

Who We Are

The American Geophysical Union (AGU) is an international non profit scientific association with more than 62,000 members working on a broad spectrum of scientific topics that span all of the Earth and space sciences.

Our members work for corporations, universities, non profit organizations, research labs, and federal, state and local government agencies. Their research encompasses critical issues such as:

- Learning about natural hazards, their impacts, and how we can prepare
- Searching for natural resources like coal and oil
- Predicting the impact of air pressure, temperature, water vapor, and wind speed on weather
- Exploring the nature of planets and planning and implementing space missions for exploration and discovery
- Studying hydrology and water resources
- Understanding climate change and its impacts

We are committed to the practice of relevant and timely scientific research and the communication of those results to the public—particularly as it relates to protecting America’s national security, economic competitiveness, and public safety. Our science is accurate, peer reviewed, and well respected.

Why We Matter

History shows that much of the economic growth the U.S. enjoyed post-World War II was the result of strong support for and investments in science and technology.

Scientists and engineers make up only 4% of the American workforce, but their work disproportionately creates jobs for the rest of the nation. Their work often represents the first line of defense against hurricanes, tornadoes, floods, and droughts for tens of millions of people nationwide.

How We Can Help

AGU is a well-respected source for accurate, timely and unbiased information on Earth and space science topics. Because our science has such a broad impact on the world around us, we recognize the importance of making this information readily available, not just to our members but also to the public and to our elected and appointed officials.

We are your one-stop source for Earth and space science information and expertise. Join us for the AGU Science Policy Conference, 24 to 26 June 2013, when scientists, policymakers, industry professionals, and other stakeholders will gather to discuss key Earth and space science issues and their impact on the world around us. Learn more at spc.agu.org.

**62,000
Members**

**18
Journals**

**23,000
Fall Meeting
Attendees**
World's largest
gathering of Earth
and space
scientists

**4–10
Conferences
per Year**

**8–10
Congressional
Briefings
per Year**

