Groundbreaking Report Details Status of U.S. Secondary Earth Science Education

Alexandria, VA - The Center for Geoscience Education and Public Understanding at the American Geosciences Institute has released a landmark report on the status of Earth Science education in U.S. middle and high schools, describing in detail significant gaps between identified priorities and lagging practice.

The report, “Earth and Space Sciences Education in U.S. Secondary Schools: Key Indicators and Trends,” offers baseline data on indicators of the subject’s status since the release of the Next Generation Science Standards (NGSS) in April 2013. Establishing clear aims for the subject, the NGSS state that the Earth and Space Sciences should have equal status with the Life Sciences, Physical Sciences, Technology, and Engineering. However, the report shows that school districts and other organizations fail to assign the Earth Sciences this status.

Only one of the nation’s 50 states requires a year-long Earth/Environmental Science course for high school graduation, whereas 32 states require a Life Science course, and 27 require a Physical Science course, according to the report. Only six states require that students are taught Earth Science concepts as part of their graduation requirements. Detailed and analyzed are key indicators including:

- presence of Earth Science topics in state and national standards;
- consideration of Earth Science as a graduation requirement;
- evaluation of Earth Science concepts on high-stakes assessments; and
- acceptance of Earth Science courses for college admission.

Recommendations for better treatment of Earth Science subject matter include changes in the subject’s relevance to graduation requirements, the discipline’s presence on assessments, designation of Earth Science courses as laboratory courses, and establishment of an Advanced Placement Earth Science program.

The 2013 report is the first original offering of the Center, which launched an online hub of geoscience education and outreach resources on October 16, 2013. The site can be found at www.geocntr.org, and the report at http://bit.ly/19UBQMt.

The report is being launched as part of Earth Science Week (www.earthsciweek.org), the international celebration of the Earth Sciences that is organized by AGI and reaches over 50 million people with geoscience resources and information each year. Updated editions of the report are planned to be released annually during Earth Science Week, each October, to gauge changes in the status of Earth science nationwide.

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The American Geosciences Institute is a nonprofit federation of geoscientific and professional associations that represents more than 250,000 geologists, geophysicists and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geosciences education, and strives to increase public awareness of the vital role geosciences play in society’s use of resources, resiliency to natural hazards, and interaction with the environment.