NAS Report on NOAA Education Programs

The National Academy of Sciences’ Board on Science Education (BOSE) has released a review and critique of public education programs and activities run by the National Oceanic and Atmospheric Administration (NOAA).

On October 6, the Academies held an event on Capitol Hill to share the conclusions of the report with Washington’s policymaking and advocacy communities. Louisa Koch, NOAA’s Director of Education, formally represented the agency, sharing the stage with several members of the BOSE panel that developed the report. Created by the Nixon Administration in 1970, it was not until 2007 that NOAA received an agencywide mandate for education.

That year’s COMPETES (Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science) Act—which was better known as the National Science Foundation’s (NSF) reauthorization bill—directed NOAA to conduct, develop, support, promote, and coordinate formal and informal educational activities at all levels to enhance public awareness and understanding of ocean, coastal, Great Lakes, and atmospheric science and stewardship. The law also tasked NOAA with developing a formal education plan—to be updated at regular intervals.

Koch explained that NOAA’s education programs are focused on both students and members of the general public. She noted that NOAA is the only federal agency officially charged with a focus on conservation and stewardship and that this plays a significant role in some of the agency’s environmental education programs. Koch also told the audience that only 8 percent of K-12 education funding nationally comes from federal sources and that all of the federal sciences agencies combined spend about the same amount on STEM (science, technology, engineering, and mathematics) education as the U.S. Department of Education.

With this context in place, Koch noted that NOAA views their education mission as all encompassing—the agency’s experts are called upon to ensure the scientific rigor of NOAA’s education programs and the agency utilizes its many local offices and sites around the country to provide place-based educational offerings. The BOSE panel members praised NOAA for this and indicated that the agency does an especially good job of working with local school districts.

During the open discussion portion of the Capitol Hill event, I stressed the importance of providing education aimed at building spatial thinking and analysis skills—especially for students. These skills are, of course, critical to all aspects of learning and informed decision-making, can foster success in other STEM fields, and enable individuals to pursue careers in the rapidly-growing geotechnologies field. Koch asserted that NOAA is focused on this in their education mission and that geography underpins many of the programs they offer.

The conclusions and recommendations of the BOSE report are too lengthy to list in this article, but the document concludes that NOAA has developed diverse education activities for a wide range of audiences and regions. While many of the conclusions of this committee address issues with NOAA’s education efforts, the agency and its education staff are to be commended for their historic commitment to education, which precedes the agency-wide congressional mandate on education. The full BOSE report on NOAA can be found on the Web at: http://www.nap.edu/catalog. php?record_id=12867.

The AAG, of course, has been heavily focused on promoting geography education at the K-12 level, especially as part of the Elementary and Secondary Education Act (the federal law currently known as No Child Left Behind)—but we believe it is critical that all federal agencies engaged in scientific education promote the key spatial and geographic skills that can prove so critical throughout an entire lifespan.

The report follows a similar critique BOSE published in 2008 on elementary and secondary education programs at the National Aeronautics and Space Administration (NASA).

2010 Elections to Affect Redistricting

With a submission deadline well before Election Day, I decided to steer clear in this column of any topics that will be heavily influenced by the midterms. Please look for full coverage of the election in the December edition of the Washington Monitor—including the impact of voters’ choices on the 112th Congress and the outlook for scientific and education appropriations and issues.

I did, however, want to point readers to an important political geography topic that will become a dominant issue in the wake of the election: redistricting. Readers are probably well aware that Congressional and state legislative districts must be redrawn every ten years once a Census occurs. As I mentioned in my July/August column, the Census Bureau will begin delivering Census block population data to the respective states in February 2011 so that the redistricting process can begin. The Bureau will aim to get data to states that have earlier redistricting deadlines first—but all redistricting data must be delivered by April 2011.

Redistricting has a significant impact on the U.S. House, but the process is carried out at the state level. In most cases, state legislatures and Governors will debate new district lines—and many of these officials will have been elected on November 2. As developments occur that impact redistricting in key states (including states that lost or gained House seats as a result of population changes), I will endeavor to cover this critical political geography topic in future columns. Stay tuned!

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The AAG is sponsoring a new photography competition. See back cover for details.