

## Science Advice in the States

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## **Science Advice in the States**



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n 2006 this column posed the question, "Where are all the state science advisers?" With states challenged to make more decisions about investments in research, science education, and tech-based industry, author Gillian Andres asked, Who is advising the governors? She found that few US states had science advisers within the governor's office. An informal survey conducted by the AIBS Public Policy Office in July 2006 found that just six states (Louisiana, Nevada, New Mexico, Oregon, Utah, and Virginia) had identifiable positions. A handful of other states, including Kansas, had had science advisers in the past, and about half received advice from science and technology advisory boards. Unlike science advisers, however, these boards generally address narrower issues, such as science education and fostering ties between academia and industry.

Since 2006, progress has been slow but steady. The governors of Ohio and Wisconsin appointed science advisers. Massachusetts created two advisory bodies to inform science education and ocean management in the state. Two recent reports also drew attention to the issue. A 2008 report from the National Academy of Sciences (NAS) and a 2007 report from the National Governors Association and Pew Center on the States considered the options for providing science advice to states—ranging from science advisers in the governor's office to state academies of science. These reports concluded that regardless of its structure, scientific expertise should be accessible to state governments in order to help officials foster innovation, make sound investments in public-private partnerships, and formulate public policy.

A strong case can be made, however, for individual science advisers. "If you have a science adviser sitting in the governor's office, you have a person who is hearing everything that's going on all the time, not just in science, but in transportation and homeland security and health and education and everything else," said Thomas Bowles, science adviser to New Mexico Governor Bill Richardson (D), at an NAS meeting on the topic. "And where appropriate, you can jump in and say, 'Wait a minute, science ought to have some say in this.... We have a way to help you."

Although states have been slow to hire science advisers, climate change advisory boards have been springing up across the country. At least 32 states have formed such bodies to evaluate the risks of climate change and make recommendations for mitigating and adapting to climate impacts. Composed of representatives of state agencies, academia, industry, and other interest groups, these task forces are often disbanded after their final report is completed, making it difficult for a state to update its climate action plan as climate science progresses. One exception is Alaska's Climate Change sub-cabinet, formed by then-governor Sarah Palin (R) to advise the governor's office on the preparation and implementation of a state climate change strategy. According to Larry Hartig, sub-cabinet chair, Alaska's strategy is dynamic and changes with the state of climate science: "My hope is the climate change strategy will be a living document reflecting the best knowledge on the effects of climate change in Alaska."

Despite the benefits of implementing science advisory boards, some states have elected to do away with these

bodies. Idaho Governor C. L. "Butch" Otter (R) disbanded his state's Science and Technology Advisory Council in 2008. In 2005, Tennessee Governor Phil Bredesen (D) targeted a quarter of his state's advisory commissions for termination, including the Science and Technology Advisory Council, to save money and reduce bureaucracy.

Science advisers are also susceptible to political influence, especially when appointed by a governor: Science advisers have no job security after an election. However, the 37 gubernatorial elections this November provide an opportunity to increase the number of science advisers in state governments. For better or worse, elections are a chance to elevate the status of science within state governments and to encourage newly elected, or reelected, governors to add science advisers to their administrations.

"States, like the federal government, are grappling with many issues where science expertise is crucial," said Don Waller, professor and chair of the biological aspects of conservation major at the University of Wisconsin. "Scientists are trained to approach problems creatively and objectively—they enjoy looking at problems from many points of view. But states do not have the same staff or resources as the federal government has to respond to demands for scientific expertise. Recruiting a distinguished science adviser, or science advisory committee, represents a very cost-effective way to add that expertise."

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