

## Where Are All the State Science Advisers?

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# Where Are All the State Science Advisers?



GILLIAN ANDRES

**S**ince World War II, the federal government has set the science policy agenda for the United States. In recent years, however, states have increasingly sought to expand their role, at least perceptually, in an effort to nurture economic development. Although this growing state involvement in science policy by no means rivals the federal government's, it does suggest the emergence of a new research policy environment.

The recent push to take a greater role in science policy is partially a result of efforts to boost state economies or to support research that the federal government does not. For example, California, New Jersey, Illinois, Massachusetts, Maryland, and Connecticut have approved state funding for embryonic stem cell research that a presidential executive order has prevented federal agencies from funding. Other states have begun encouraging public-private research partnerships that facilitate technology transfers from academic centers to private industry. Dan Berglund, president and CEO of the State Science and Technology Institute, a national nonprofit association that studies public-private research partnerships, told the *Chronicle of Higher Education* in 2002 that there has been "a change in the view that most states have of the role of their universities." Berglund explained, "The amount of interest in encouraging the commercialization of university-developed technology has just exploded."

As states consider taking a greater role in science policy, they face significant challenges, most important of which is to find ways to fund state-sponsored research. Data from the National Science Foundation (NSF) show state funding declining from 8.1 to 6.6 percent of total spending for university research and development from 1990 to

2004. The situation is poised to become more difficult: According to a February 2006 projection from the National Center for Public Policy and Higher Education, "All states face potential budget deficits that will serve to limit the funding of higher education" until at least 2013. These budget realities underpin questions about the sustainability of state initiatives.

If the forecasts are correct and budgets do tighten, states may be unable to fulfill their commitments, and they may even be forced to cut existing research programs. These concerns were realized in 2003, when state budgets were especially unforgiving. At that time, George Happ, a University of Alaska (Fairbanks) biologist and project director of the Alaska Experimental Program to Stimulate Competitive Research (EPSCoR), told *Science* that cuts to state research funding "eat your seed corn.... Once that money disappears into operating funds, it's not likely to be used again for science."

Some policy analysts are beginning to think that within this new science policy environment, states could benefit from appointing a science adviser with a role similar to that of the president's science adviser in the White House Office of Science and Technology Policy. State science advisers could play a central role in helping states ensure strong science education standards, develop science policy in a cohesive manner, and set realistic budget priorities.

Oregon is among the few states that have already appointed a science adviser. Governor Ted Kulongoski named Erik Stenehjem Oregon's science and technology adviser in February 2006, saying Stenehjem would help to "expand our economy and create economic opportunity for Oregonians... [and to] attract the kind of citizens and environmentally sound businesses that

share our high standards of performance and quality of life."

Although some states have created similar positions in recent years, they have done so independent of one another and without guidance from national science agencies. The NSF, the National Academies, and other national organizations do not have data on the number of states with science advisers, but an informal survey conducted by the AIBS Public Policy Office in July 2006 showed that the majority of states' governor's offices reported that they do not have an official state science adviser or that they could not identify the position.

Even in states that did report having a science adviser, it appears that such advisers are relatively isolated—there is no national association to facilitate communication among them, and it is difficult for individual advisers to identify their counterparts in other states. Lee Allison, director and state geologist at the Arizona Geological Survey and former Kansas science and energy policy adviser, explained that without a means to coordinate nationally, the existing state science advisers are essentially "doing this on their own."

The lack of information and coordination may seem daunting for states interested in appointing science advisers, but the challenge can be surmounted. Existing programs need to be evaluated, perhaps by the NSF or the National Governors Association, so that states can apply lessons learned from past successes and failures when they develop adviser positions that fit their specific science policy needs.

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