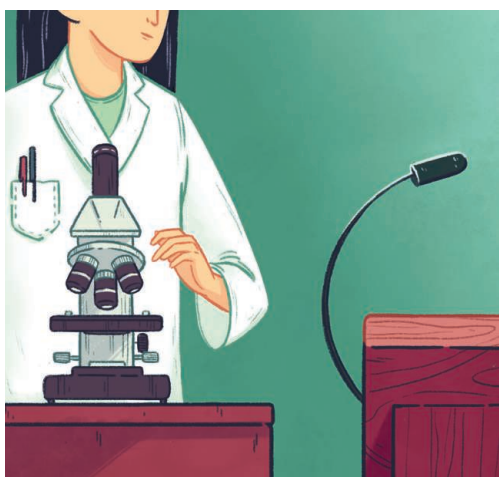
EDITORIAL

Science for state legislatures

Next week on 14 April, the March for Science will once again demonstrate the widespread public support for science around the world. Nowhere is this message more needed than in Washington, D.C., where the federal government continues to ignore the value of independent science advice to inform decision-making. Given this lack of expertise at the national level, it is critical to bolster the role of science in policy-making at the state government level. Here, California can lead by example.

Lawmakers must often evaluate scientific and technical information when making decisions, but such information can easily be misused, misrepresented, or ignored. Forty-five years ago, the American Association for the Advancement of Science (AAAS, the publisher of *Science*) launched its Science and Technology (S&T) Policy Fellowship Program, which has since enabled thousands of Ph.D. scientists, engineers, and physicians to work for a year for the U.S. government. Many of these fellows switched careers to populate the government, thereby connecting the scientific community to critical societal issues. Can the impact of these national-level fellows be mimicked at the state level? Nearly a decade ago, a similar program was created for the California state legislature—the California S&T Policy Fellows Program (on whose advisory committee we serve)—which could inspire other states to develop similar fellowships.



"The Fellows also helped policy-makers understand 'science as a second language.'"

California's economy is larger than that of all but five nations, and its legislature is composed of a Senate with 40 members and an Assembly with 80 members. The state's economy is highly dependent on S&T, but there have been few individuals with a science or technology background associated with its legislature. Consequently, in 2009, the Gordon and Betty Moore Foundation provided a grant to the California Council on S&T to implement an annual S&T Fellowship Program. Each year, this program selects, trains, and places 10 Ph.D.'s or M.D.'s as California S&T Policy Fellows who serve as full-time legislative staff for a year.

A key metric for determining the effectiveness of the Fellows is evidence that their input directly affected legislation. In a recent survey of 67 former California S&T Policy Fellows, 56% reported that they provided input related to incorrect technical interpretations that resulted in weekly or monthly course corrections by legislative offices. Former legislators revealed that working with the Fellows added value to their offices in many ways, including proposing ideas for bills that relate to high-value job creation. The Fellows also helped policymakers understand "science as a second language." It is particularly impressive that 47% of the Fellows were hired into the state legislature after completing their 1-year fellowship; another 9% were hired into executive branch offices in California.*

We and other scientists who have been involved with the California S&T Policy Fellows Program from the start find it both sobering and instructive to recall the difficulty in finding places for the initial 10 Fellows. The good news is that attitudes have changed since 2009, and Fellows are now in great demand. Moreover, because of daily contact with these knowledgeable individuals, both the legislature's appreciation of scientists and its use of science for decision-making have dramatically improved.

The establishment of S&T fellowship programs in other states could greatly increase evidence-based policy-making and not only benefit state policy-makers but also help to inform national policy-making and society as a whole. The California S&T Policy Fellows are currently supported on an annual basis through gifts from supportive individuals and private foundations. Many more funders should invest in "spreading scientists" to government at the state level to convey the benefits of science to society, especially when such critical advice at the national level seems sidelined. The federal government could certainly use some good role models right now.

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