Adviser nomination spurs questions

Dr. Aldemaro Romero Jr.

After a 19-month delay, the Trump Administration has nominated someone to be the director of the Office of Science and Technology Policy, or as is more colloquially known, the science adviser to the president.

Congress established the White House Office of Science and Technology Policy (OSTP) in 1976. President Gerald Ford, a Republican, signed the act creating the agency into law. That took place after President Nixon disbanded the then-called "President Advisory Committee" in 1973.

The mandate for the agency is to provide the president and others within the Executive Office of the President with advice on the scientific, engineering, and technological aspects of the economy, national security, homeland security, health, foreign relations, the environment, and the technological recovery and use of resources, among other topics.

Therefore, it is an agency that can have a tremendous influence on U.S. politics and policies since before making any decision on the abovementioned areas, the president is supposed to hear what the science adviser has to say. However, in recent actions, including how to deal with nuclear threats from North Korea, natural disasters, and the withdrawing of the U.S. from the Paris climate agreement, Trump has acted without the advice of any scientific expert.

"The dismissal of scientific evidence in policy formulation has affected wide areas of the social, biological, environmental and physical sciences," read a statement signed by more than 1,000 members of the National Academy of Sciences last April.

More than a year and a half since becoming president, and with the OSTP staff reduced from 135 to just 45 people, Trump has finally nominated Kelvin Droegemeier, a meteorologist with a long research record in the area of predicting severe storms, to head the Office. Droegemeier, 59, will still need to be confirmed by the U.S. Senate. Droegemeier has been working since the 1990s in applying radar technology and computer technology to predict the development

of thunderstorms. He went on to co-found the National Science Foundation's (NSF) Science and Technology Center for Analysis and Prediction of Storms, as well as the NSF's Engineering Research Center for Collaborative Adaptive Sensing of the Atmosphere. He is now vice president for research at the University of Oklahoma and the state's secretary of science and technology.

Under both George W. Bush and Barack Obama, he served on the National Science Board, which sets the priorities for the National Science Foundation and advises Congress and the president.

The nomination has been well received within the scientific community, which was anxious about a potential nomination of someone with ties to industry (as has happened at the Environmental Protection Agency and the Department of Education) or just some kind of witch doctor from the lunatic fringe. Yet, there is an area for which there is no paper trail on Droegemeier's position: climate change. And he will be the one reporting to a president who has publicly called climate change "a Chinese hoax." Politically speaking, Droegemeier is a conservative whose web page is emblazoned with "God Bless America!!!" something quite unusual for people in the academy. He leads a state science advisory panel named by Oklahoma Gov. Mary Fallin, and has advised former Oklahoma Rep. Jim Bridenstine – both Republicans – in a very red state. Bridenstine is now the administrator of NASA

But the question is, even if he agrees with the scientific consensus on climate change and other matters, will he be heard?

From a practical viewpoint, the president's science adviser is supposed to get various government agencies to agree on research priorities, and then help to make sure those strategies are reflected in federal funding. And the Trump Administration is notorious for ignoring scientific advice and has proposed deep cuts in science and technology budgets at the national level. At some point, they proposed a 20 percent cut in the budget of the National Institutes of Health, the primary generator of scientific information in medical matters.

The administration proposed an EPA rule that would limit the use of science for crafting regulations where all underlying data aren't publicly available. The new rules "would ensure it pursues its public health mission in a manner the public can trust and understand." In other words, if the science is too complicated for the general public to grasp, then ignore it. Such a proposal would open the door for unscientific information generated by interest groups to influence public policy.

The Trump Administration has also proposed slashing the budgets of a public-health preparedness fund at the Centers for Disease Control and Prevention, climatechange programs at the EPA, and NASA's Wide-Field Infrared Survey Telescope. Droegemeier does have a record of supporting federally funded research. In an opinion piece published last year in the Des Moines Register, he called for the White House and Congress to shore up federal research funding. "Though the benefits of short-term savings in the yearly federal budgets may be appealing, they result in insidious, long-term consequences," he wrote. "Due to underfunding, we risk losing an entire generation of researchers."

During the confirmation hearings, we will get to know more about Droegemeier's stances, as well as about the skepticism of some Republican senators about science informing policy. But the real question is, will Droegemeier be heard by a president notorious for making decisions without consulting appropriate people even within his ideological camp?

Furthermore, it is not clear whether the White House intends to appoint Droegemeier as an assistant to the president, a position held by several recent White House science advisers. The title, which is separate from that of OSTP director, essentially signals close ties to the president and his top aides. An OSTP staffer told reporters that any decision about whether to give Droegemeier an additional title would be made after his confirmation by the Senate.

Now we will have to wait and see.

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