Pandemic Exposes Fatal Consequences of Dismissing Scientific Expertise
1,220 members of the National Academy of Sciences call for science-based policy

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“Ignorance and wishful thinking are not effective response strategies in the face of a global pandemic or global climate change,” said Dr. Ben Santer, one of three co-organizers of this open letter. “We need to restore science-based policy in government – but we also need to ensure that science is valued in public discourse and in all levels of our educational system.”

This call for restoring science to policymaking has a several-year history. In the summer of 2016, while campaigning for the Republican nomination for the U.S. Presidency, Donald J. Trump publicly announced his intention to withdraw the United States from the Paris Climate Accord. This announcement – and Mr. Trump’s public dismissal of climate science as “a hoax” – prompted four members of the U.S. National Academy of Sciences to write an open letter (http://responsiblescientists.org). The letter’s purpose was to affirm the reality and seriousness of human-caused climate change. It pointed out the severe and long-lasting consequences of an eventual U.S. withdrawal from the Paris Climate Accord. At the time of its publication in September 2016, the open letter had 378 NAS signatories.

Following his election in November 2016, President Trump fulfilled his campaign promise. On June 1, 2017, he announced his intention to initiate the process of withdrawing the United States from the Paris Climate Accord. This process will be formally completed on November 4, 2020. On that date, the U.S. will be the only country in the world that has repudiated the Accord.

The decision to withdraw from the Paris Accord was symptomatic of a larger problem. Since January 2017, the current Administration has diminished the role of science and scientists in many areas of public policymaking – not just in areas related to climate science. Examples include the failure to fill key scientific advisory positions; the exclusion of scientists with relevant expertise from Government scientific advisory boards; concerted efforts to roll back clean air and clean water legislation, to the detriment of public health; and the widespread loss of critical scientific expertise from many Government agencies.

These negative developments prompted three NAS members to write a second open letter in April 2018. It was entitled: “Statement to Restore Science-Based Policy in Government” (https://scientistsforsciencebasedpolicy.org). All NAS members were invited to sign the statement. Over 1,000 members – roughly 38% of NAS membership – chose to do so.

The COVID-19 pandemic exposed the serious consequences of dismissing and devaluing scientific expertise. The Federal Government has not provided the public with consistent, science-based guidance on the severity of the pandemic or on the required responses. Relevant expertise at the CDC and elsewhere has been marginalized or attacked. This inadequate Federal response to one of the greatest public health challenges of the past century should be deeply concerning to all NAS members – particularly given the NAS’s mission to provide “independent, objective advice to the nation on matters related to science and technology”.


Clearly, the need to “Restore Science-Based Policy in Government” is urgent. To call attention to this urgent need, the organizers of the April 2018 letter invited recently elected members to the NAS (from the classes of 2019 and 2020) to add their names to the list of signatories. Over 62% of these new members chose to do so. The total number of signatories is now over 1220. All signatories are acting as individual members of the U.S. National Academy of Sciences, and not in any official NAS capacity.

“I am struck by the fact that the response to our open letter from NAS members elected in 2019 and 2020 exceeded 60 percent, a remarkably high response rate for an effort of this sort,” commented Dr. Ray Weymann, co-organizer of the effort. “It says to me that scientists recognize more than ever the urgency of restoring scientific input and integrity to the Federal Government and that failure to do so now has consequences that are literally a matter of life and death. We want the public to understand this as well.”

Open letters alone are unlikely to change the Administration’s views on the role and importance of science in public policymaking. Meaningful change is even less likely to happen if scientists in positions of influence remain silent. As the widespread endorsement of the April 2018 open letter indicates, many of this nation’s leading scientists are now willing to use their voices. They have affirmed that ignoring science – on climate change, COVID-19, or many other critically important issues – is not an option.

The third co-organizer, Dr. Charles Manski, added a call for the government to bring together the many branches of science that are relevant for a more effective societal response to the pandemic. “There is an urgent need for integrated assessment of COVID-19 policy that considers the full health, economic, and social impacts of alternative policy options, he explained. “The Federal Government should take the lead to convene an interdisciplinary group of our best applied scientists to engage the matter and provide well-grounded advice.”

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