Abandoning Science Advice

One Year in, the Trump Administration Is Sidelining Science Advisory Committees

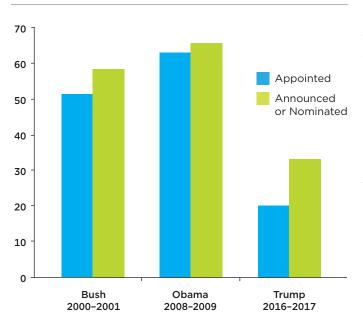


The Trump administration's relationship with science and evidence is strained.

At several federal agencies, political appointees have misrepresented scientific information, overruled the recommendations of scientific experts, scrubbed scientific content from websites, and even forbidden some staff from describing their work as "science-based" in budget documents (Carter et al. 2017; Sun and Eilperin 2017). These actions are well documented, but less attention has been paid to a related challenge: the state of science advice that the White House and federal agencies need on an ongoing basis.

When making important decisions, all modern presidents and their appointees at federal agencies have relied on scientific advice from entitites such as the presidential science advisor, the White House Office of Science and Technology Policy (OSTP), the President's Council of Advisors on Science and Technology (PCAST), and advisory committees within federal agencies. Breaking with four decades of precedent,

FIGURE 1. Presidential First-Year Appointments to Science Positions



Not only has President Trump failed to nominate a presidential science advisor, but he also has filled only 20 of 83 top government science positions, far fewer than his two predecessors in their first year as president.

SOURCES: PARTNERSHIP FOR PUBLIC SERVICE AND WASHINGTON POST 2017; NAS 2008.

President Trump has failed to nominate a presidential science advisor. The OSTP, which the advisor would direct, sits mostly dormant, with a skeletal staff of 38 in contrast to its 130 staff members in 2016 (Marshall 2017). While President Trump commissioned PCAST by executive order on September 29, he took no further action to appoint advisors in 2017 (Federal Register 2017a). By contrast, President Obama nominated PCAST's co-chairs before his first inauguration and the rest of the committee just three months into his first term so that the council could meet three times during the year (White House 2017; White House 2009; Kintisch and Mervis 2009). President George W. Bush nominated the science advisor and PCAST chair six months into his first term and appointed PCAST members in December of his first year (Lane 2001; White House 2001). As of December 31, 2017, President Trump had filled 20 of the 83 government posts that the National Academies of Science designate as "scientist appointees" (Partnership for Public Service and Washington Post 2017; NAS 2008). At this point in their respective administrations, President Barack Obama had filled 63 such positions and President George W. Bush had filled 51 (Figure 1).

To examine whether the neglect of scientific advice extends beyond top-level appointments, the Union of Concerned Scientists (UCS) analyzed the record of the government's network of science advisory committees. The analysis included meeting and membership data from 73 advisory committees designated as "scientific and technical" across 24 departments, agencies, and subagencies within the Department of Commerce (DOC), the Department of the Interior (DOI), and the Department of Energy (DOE), as well as the Food and Drug Administration (FDA), the Centers for Disease Control and Prevention (CDC), and the Environmental Protection Agency (EPA). We also interviewed 33 current and former committee members. (Full methodology and detailed results available online at www.ucsusa.org/scienceadvice.)

The UCS research reveals the Trump administration's sidelining of scientific advice is considerably more widespread than previously recognized. Among the findings:

- Science advisory committees at the DOE, the DOI, and the EPA have met less often in 2017 than at any time since 1997, when the government began collecting such data.
- Fewer experts serve on science advisory committees at the DOE, the EPA, and the DOC than at any time since 1997.

- The total number of science advisory committee meetings in 2017 at the agencies UCS analyzed decreased 20 percent from 2016 and membership decreased 14 percent. This compares with a 4 percent decrease in meetings and a 7 percent decrease in membership during President Obama's transition year and 38 percent and 0.8 percent decreases, respectively, in President G.W. Bush's transition year.
- In 2017, nearly two-thirds (62 percent) of the 73 science advisory committees at the 24 agencies analyzed met less frequently than their charters direct.

Further, actions at some agencies are likely to reduce both the quality and quantity of scientific advice. For example:

- The EPA dismissed experienced experts from its Science Advisory Board. In an unprecedented move, EPA Administrator Scott Pruitt banned all experts who receive agency grants from serving as advisors on any committee.
- Secretary of Energy Rick Perry failed to reconstitute the Secretary of Energy Advisory Board, the agency's longstanding flagship advisory committee.
- The DOI froze membership on its more than 200 federal advisory committees, including nine scientific committees, at a time when the agency was making critical landmanagement decisions, including a review of national monuments.
- The DOL halted the work of several Occupational Health and Safety Administration (OSHA) advisory committees.
- The FDA disbanded its Food Advisory Committee.
- The DOI disbanded a climate science advisory committee as did the Commerce Department's National Oceanic and Atmospheric Administration (NOAA).

Why Advisory Committees Matter

The neglect of independent scientific advice seriously endangers the nation. Such advice is crucial to the federal government's ability to make informed decisions on matters that have enormous consequences for public health and safety. Policymakers regularly turn to science to help them determine government responses to complex challenges, from the outbreak of deadly diseases to environmental and national security threats. From the discovery of lifesaving vaccinations to the development of the Internet, scientists advising the federal government have an indisputable record of helping

The UCS research reveals a clear pattern: the Trump administration's sidelining of scientific advice is considerably more widespread than previously recognized.

make Americans safer, healthier, more prosperous, and better informed.

Of the roughly 1,000 advisory committees currently in operation, the federal government designates over 200 as "scientific and technical" in nature, comprised of independent experts from academia, state and local government, industry, and nonprofits (GSA 2017). The president, Congress, and federal agencies can commission such committees and empanel them to examine and make recommendations about particular short-term problems, such as disease epidemics, and perennial issues, such as nuclear safety (Ginsberg and Burgat 2016). Official charters, renewed every two years, govern the committees and dictate their missions, procedures, and meeting frequency.

The thousands of independent experts called upon to serve on the government's network of science advisory committees weigh evidence and debate issues ranging from the safety and effectiveness of new drugs to the best course of action for minimizing lead exposure from drinking water. These scientists and technical specialists, often serving without pay or receiving only modest stipends, provide an important vehicle for providing decisionmakers with robust, professional, and up-to-date scientific advice.

Advisory committees play an important role in alerting federal officials to the policy implications of the latest scientific research, with consequences that can be a matter of life and death. This was the case in the 1970s, when policies required a phase-out of the use of lead in paint and gasoline, based on research into the neurological effects of lead on children. Research on infectious diseases has saved innumerable lives by helping governments prevent future outbreaks or craft responses to them. Research on chemicals and metals has dramatically improved the quality of our air, water, and soil. In 2004, an FDA advisory committee weighed evidence of an elevated risk of suicidal thinking in children and adolescents who took a class of popular antidepressants. It then recommended that the FDA employ its most serious

warning label in order to reduce the risk of such tragic deaths among youth (Newman 2004; FDA 2004).

Science advisory committees provide a transparent and objective eye that helps the public know when the government is making sound, science-based decisions. And it helps us know when to hold the government accountable when it fails to protect the public interest.

Findings: A Pattern of Neglect, Agency by Agency

The UCS investigation of federal advisory committees finds that the Trump administration systematically sidelines science to an unprecedented extent by neglecting valuable input from the nation's established network of federal science advisory committees.

Analyzing data from a government-run database mandated by the 1972 Federal Advisory Committee Act (FACA), we find that the number of federal science advisory committee meetings decreased substantially over the past year, as did the number of committee members (Figure 2). From 2016 to 2017, the number of science advisory committee meetings across all agencies examined decreased 20 percent; the number of members decreased by 14 percent. During the Obama administration's first year, the number of meetings actually increased slightly and membership decreased only 7 percent.

Agencies vary, yet there was an aggregate pattern of failure to adhere to committees' chartered missions. Advisory committee members report that meetings are routinely cancelled or rescheduled at the last minute, sometimes repeatedly. Some advisory committees had similar issues in the Bush and Obama administrations, but the trends appear to have worsened during the Trump administration.

In several cases, members report that brief telephone conference calls—as short as 15 minutes—have replaced in-person meetings. The aggregate data support anecdotal reports. For example, the vast majority of science advisory committees at the FDA (71 percent), the EPA (70 percent), and DOI (67 percent) failed to meet in 2017 as frequently as their charters dictate (Figure 3).

THE ENVIRONMENTAL PROTECTION AGENCY: ERODING IMPARTIAL SCIENCE ADVICE

At the EPA, the number of science advisory committee meetings held and the current number of committee members stand at their lowest levels since the government began collecting such records in 1997. More than two-thirds of the EPA's science advisory committees failed to meet as often as their charters direct.

Yet those numbers fail to capture the breadth of actions that EPA Administrator Scott Pruitt has taken to disrupt and politicize advisory committee work.

In October 2017, Administrator Pruitt announced that scientists currently receiving EPA grants could not serve on any agency advisory committee, including the Science Advisory Board (SAB), the Clean Air Scientific Advisory Committee (CASAC), or the Board of Scientific Counselors (BOSC). This policy, issued with little justification and without precedent, creates a double standard: it forces out scientists who receive EPA funding, while tribal and state

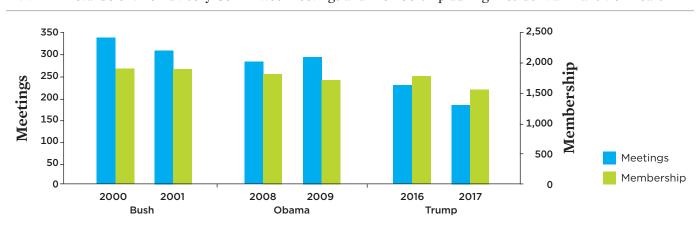
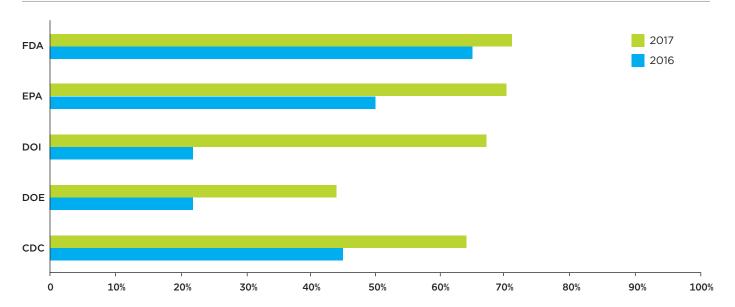


FIGURE 2. Total Scientific Advisory Committee Meetings and Membership during Presidential Transition Years

Science advisory committee meetings and membership have decreased in number in 2017 compared with 2016, slowing committee work to help agencies decide on emerging scientific and technical issues. While less activity is common in the first year of a new administration, the differences between 2016 and 2017 are greater than those of the Clinton-to-G.W. Bush and Bush-to-Obama transitions.

SOURCE: GSA 2017





Overall, the number of science advisory committee meetings is down in 2017. At four key agencies, over half of committees met less often than their charters direct.

SOURCE: GSA 2017.

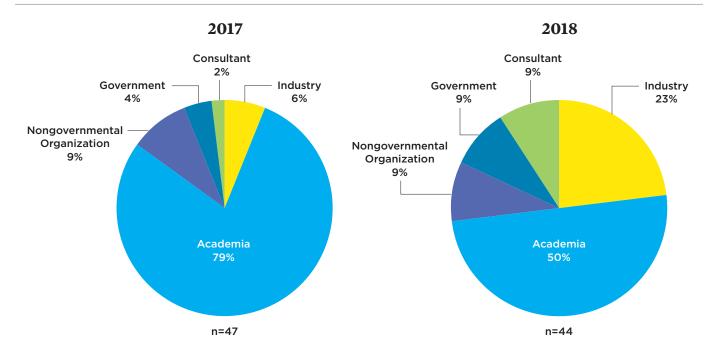
entities receiving EPA funding and industry scientists face no such restriction (Friedman 2017).

Until this move, the agency had relied on independent experts, regardless of whether they received agency grants—grants that often have little to do with the range of topics on which members advise. Of course, qualified industry scientists have long served on advisory committees as well, but Administrator Pruitt's policy shifts the balance on advisory committees away from unconflicted academic experts toward industry experts.

Also breaking with precedent is the decision to not renew the terms of six individuals who had been fully vetted and were qualified to serve on the EPA Science Advisory Board. One of those individuals, Charles Werth, a distinguished professor of environmental health engineering at the University of Texas, Austin, said, "It was my impression that there's more turnover on the board this year because of the desire of the administrator to have more industry representation. . . . It is certainly a break from the past and a changing of the board's representation" (Werth 2017). After implementing the new policy, Administrator Pruitt moved swiftly to triple the number of industry representatives on the SAB (Figure 4, p. 6) (Reed 2017).

Administrator Pruitt's shakeup of EPA advisory committees began in May 2017, when he failed to renew nine members of the Board of Scientific Counselors, which reviews the work of EPA's research scientists on chemical safety, air pollution, fracking, and a variety of other critical topics (Eilperin and Dennis 2017). Pruitt continued to reshape the committee in June, notifying 38 of the 49 executive committee and subcommittee members that their terms would not be renewed (renewals are typical) and cancelling board meetings for the rest of the year. As economist and BOSC member Peter B. Meyer noted, this interruption will cost the agency valuable guidance in shaping its agenda: "Cost-effectiveness of research will suffer, as will science" (Mooney and Eilperin 2017).

The EPA's politicization of the Science Advisory Board, Clean Air Scientific Advisory Committee, and Board of Scientific Counselors has drawn considerable criticism, and similar actions have occurred at less-known EPA advisory committees as well. For example, the Science Advisory Committee on Chemicals, directed to meet three to four times a year, has not met once since Congress mandated its creation in 2016 to provide advice on chemicals regulated under the 1976 Toxic Substances Control Act. The new committee replaced the former Chemical Safety Advisory Committee and expanded its membership (EPA 2017a; EPA 2017b; Former CSAC member 2017). There is concern among members of the former committee that the appointment of Nancy Beck-previously a staff person at the industry's American Chemistry Council to lead the EPA office overseeing the committee will affect how it functions (Former CSAC member 2017).



EPA Administrator Pruitt's attacks on scientific and evidence-based guidance have distorted the composition of his agency's Science Advisory Board. By forcing academic scientists with EPA grants off the committee, he decreased the 2018 representation of academic advisors 40 percent compared with 2017. Over the same period, industry representation has tripled.

SOURCES: EPA 2017C; GSA 2017.

THE DEPARTMENT OF THE INTERIOR: MANDATING DISREGARD

In May 2017, the Department of the Interior announced a formal review of the "charter and charge" of the department's advisory committees and postponed all scheduled meetings through fall 2017 (Eilperin and Dennis 2017). This edict resulted in the fewest number of meetings of the agency's science advisory committees since recordkeeping began in 1997 (GSA 2017).

Among other committees, the freeze applied to all of the Bureau of Land Management's resource advisory councils, including the Utah Resource Advisory Council, which met once (in February 2017). This means that President Trump's decision in fall 2017 to drastically reduce the size of national monuments in Utah proceeded without benefit of the Interior Department's expert advice (Dawsey and Eilperin 2017).

At the end of the review process, the DOI terminated the Advisory Committee on Climate Change and Natural Resource Science and dismissed its members. Created in 2013, the committee had advised the secretary of the interior on managing natural resources in the face of climate change (Doyle and Patterson 2017). According to conservation

biologist Paul Beier, Regents' Professor at Northern Arizona University and a former committee member, "Until the change of administration, I felt that our voice was valued. It was a very rewarding experience. I felt like we were making a difference" (Beier 2017). The committee had been slated to hold its first meeting under the Trump administration in spring 2017, but the freeze of all advisory committees came less than a week before that meeting would have taken place (Former ACCNRS member 2017).

THE DEPARTMENT OF ENERGY: NEGLECT FROM THE TOP DOWN

In 2017, the Department of Energy's science advisory committees held fewer meetings than in any year since 1997. Some 44 percent of the agency's scientific committees failed to hold the number of charter-prescribed meetings.

The Secretary of Energy Advisory Board (SEAB), a particularly strong example of an effective independent advisory committee, was left to languish in 2017. For nearly three decades, all but one Department of Energy secretary had used the SEAB extensively. This high-level committee produced detailed reports on such issues as high-speed computing, the

future of energy technologies, and the effectiveness of the DOE's 17 national laboratories.

At the start of the Trump administration, as is customary in presidential transitions, all but one of the SEAB's 19 members wrote to Energy Secretary Perry offering to resign (Kickro and Marshall 2017). The DOE website continues to list all 19 as committee members, but they report no contact from the administration in the past year (DOE 2017; Former SEAB member 2017a; Former SEAB member 2017b). Responding to our inquiry about the SEAB's status, the DOE's deputy committee management officer emailed, "The Secretary of Energy Advisory Board was sunset in January 2017, and there are no plans to reconstitute it at the moment" (Butler 2017).

"I've worked for four secretaries of energy," one of the 19 former members noted. "All of them used this committee for advice on a wide range of topics. And yet I have had absolutely no communication from the committee since Trump was inaugurated. They didn't even respond to my letter offering to resign" (Former SEAB member 2017a).

THE FOOD AND DRUG ADMINISTRATION: IDLING SCIENCE ADVISORY COMMITTEES

At the Food and Drug Administration, 71 percent of science advisory committees (22 out of 31) met less frequently than their charters prescribe. Roughly one-third failed to meet at

all in 2017. (2016 was only slightly more functional: 64 percent of committees failed to meet the prescribed number of times.) On the other hand, some advisory committees, such as the FDA's Vaccines and Related Biological Products Advisory Committee and the Pediatrics Advisory Committee, continue to meet regularly, and even more often than in the past (Member of VRBPAC 2017; Member of PAC 2017).

Some advisory committee members report that FDA Commissioner Scott Gottlieb appears to be interested in expert advice, noting that he has not terminated the FDA Science Board, which advises him on emerging scientific issues and challenges (Member of FDA Science Board 2017a). However, when the board met by phone in December 2017, with Commissioner Gottlieb participating, there was no agenda and the meeting lasted less than 15 minutes, according to another member. "In this administration, they have made little or no use of the committee thus far," the member noted. "The bottom line is we've been idle" (Member of FDA Science Board 2017b).

In December 2017, the FDA disbanded its longstanding Food Advisory Committee. This body had operated for 25 years as the agency's only advisory committee dedicated to food-related science policy. Its 17 members had advised the FDA commissioner on emerging issues in food science, nutrition, and food safety (*Federal Register* 2017b). Although



The Secretary of Energy Advisory Board, seen here touring the National Renewable Energy Laboratory in 2014, is a vital contributor to independent science in our government. Secretary of Energy Rick Perry has not reconstituted this high-level committee, breaking with three decades of precedent.



The National Climate Assessment analyzes the impact of climate change on agriculture, energy production, human health and welfare, and much more. In 2017, the Department of Commerce quietly disbanded a committee designed to advise the federal government on how to make this often technical information more useful for businesses, state and local governments, and members of the public, reducing federal assistance for people directly affected by climate change.

it had not met in 2016 either, the loss of the committee still represents a noteworthy signal from the current administration. Former committee member Urvashi Rangan noted, "The advisory committee was incredibly important and represents a significant loss to the FDA, which needs the input of multiple experts in order to ensure that they're doing the best work and operating in the public interest" (Rangan 2017).

THE CENTERS FOR DISEASE CONTROL AND PREVENTION: CENSORSHIP BUT A MIXED PICTURE

In December 2017, the Centers for Disease Control and Prevention made headlines when it and at least one other Department of Health and Human Services agency received directives prohibiting the use of seven words, including "diversity," "vulnerable," and "science-based," in agency budget documents (Sun and Eilperin 2017). Nonetheless, the CDC's science advisory committees are among the most active of the agencies reviewed. Of the CDC's 11 scientific committees, more than half matched their charter-prescribed meeting numbers, and their membership numbers stand on par with previous years.

A notable exception is the Advisory Committee to the Director (ACD), a flagship committee of public health experts and medical professionals tasked with recommending priorities for agency activities, addressing health disparities, and helping the agency fulfill its mission more effectively (CDC 2017). While the committee met in April 2017, its October meeting was canceled, ostensibly to provide more orientation time for

CDC Director Brenda Fitzgerald, even though she assumed her position in July. "Things are being held up" as a result, according to one member. "There are working groups that are completing their projects, but acting on those projects or recommendations is held up. We can't move anything along unless we have a full committee meeting." It also means that the current chair's term will expire before ever meeting with the new CDC director (Member of ACD 2017). The implications are troubling, given the CDC's vital role in protecting the nation against disease outbreaks, tracking opioid overdoses, reducing teen pregnancy, and slowing HIV transmission.

THE DEPARTMENT OF COMMERCE: SIDELINING THE NATIONAL CLIMATE ASSESSMENT

Most science advisory committees at the Department of Commerce, including those at the National Oceanic and Atmospheric Administration and the US Census Bureau, appear to meet as often as their charters prescribe, although total membership is down 13 percent from 2016. However, in August 2017, the department quietly disbanded the Advisory Committee for the Sustained National Climate Assessment as it failed to renew the charter of this key committee on climate change.

Established in 2015, the panel advised the federal government on improving the National Climate Assessment's scientific information on the ongoing impact of climate change, with the goal of making the assessment more useful for businesses, the public, and state and local governments. Its disbanding could hinder actions based on future editions of the National Climate Assessment (Eilperin 2017). Rush Holt, CEO of the American Association for the Advancement of Science, called the committee's removal "yet another example of the administration's increasingly blatant attempts to ignore and dismiss scientific information" (AAAS 2017).

THE DEPARTMENT OF LABOR: PARALYSIS BY REEVALUATION

The Occupational Safety and Health Administration (OSHA), part of the Department of Labor, has five advisory committees; four failed to meet in 2017. While these are not designated as "science advisory committees" (and thus fall outside many of this report's metrics), their work bears deeply on science policy. This is especially the case for the National Advisory Committee on Occupational Safety and Health (NACOSH) and the Whistleblower Protection Advisory Committee (WPAC), neither of which met in 2017, a rare occurrence for NACOSH since it was formed in 1970 and unprecedented for WPAC.

NACOSH advises the secretary of labor and the secretary of health and human services on best practices for implementing OSHA's standards to reduce work-related deaths,

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injuries, and illnesses and on the relevant agencies' research needs. Charged with meeting two to four times per year, it was not active in 2017 (DOL n.d. a). During a recent conference call on NACOSH's status, OSHA told committee members that they would not meet until the new OSHA director was confirmed. In the meantime, the process of bringing on new members was put on hold even though half of their terms expired at the end of 2017. According to one NACOSH member, "We can't meet in the new year [2018] either because we will not have a quorum" (Member of NACOSH 2017).

The mission of the Whistleblower Protection Advisory Committee, founded in 2012, is to improve the fairness, efficiency, and transparency of whistleblower investigations (DOL n.d. b). Soon after the Trump administration took office, committee members found out that no meetings would be scheduled until after Congress confirmed a new secretary of labor. In December 2017, members received notice that, due to President Trump's Executive Order 13781, "Comprehensive Plan for Reorganizing the Executive Branch," issued in March 2017, the Department of Labor was evaluating all of its activities, including its advisory committees. It is not known when the agency-wide review will be complete (Member of WPAC 2017a).

Given recent reports of reprisals against federal employees, the WPAC is more important than ever (Clement 2017). Members believe the administration would not risk a likely backlash from attempting to disband the committee, but they also report indications that its work will have a low priority in the Trump administration (Member of WPAC 2017b).

Conclusion

The UCS review of science advisory committees throughout the federal government reveals a pattern of neglect and disrespect. Many committees have been suspended, disbanded, or otherwise left to sit idle. These findings suggest that the Trump administration in its first year has substantially underutilized the government's network of science advisors, sidelining an important check on government decisionmaking. Committee members with extensive experience advising the government describe 2017 as "not normal" and "a break with the past" (Former CASAC member 2017; Werth 2017). Several express frustration that their committees' work has stalled (Former FDA Food Advisory Committee member 2017; Member of WPAC 2017b). "The politicization is frightening," says a former CASAC member. "Politics shouldn't be involved in this science-based process" (Former CASAC member 2017).

The administration's actions are spurring strong responses from elected officials, the scientific community, and the general public. For example, members of Congress have called on the Government Accountability Office to investigate Administrator Pruitt's EPA-wide directive on advisory committees (Whitehouse et al. 2017). One member of EPA's Science Advisory Board, Robyn Wilson, dismissed a recipient of a current EPA grant, has pushed back, refusing to resign from the board (Dennis and Eilperin 2017). And scientific societies are forming "shadow" advisory committees to monitor the activities of now-politicized committees (Sedlak 2017).

In response to the documented indications of a science advisory system in serious decline, the Union of Concerned Scientists makes three recommendations for immediate action:

- Current and former science advisors should speak out when they discover that federal agencies and others in the government are sidelining important scientific work and findings.
- The Government Accountability Office should ascertain
 whether federal agencies are appropriately carrying
 out the Federal Advisory Committee Act, especially
 given EPA Administrator Pruitt's directive on advisory
 committee eligibility.
- Congress should hold hearings on the status of science advisory committees tthroughout the government to investigate whether they are serving the public interest by functioning as directed by law.

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Abandoning Science Advice

One Year in, the Trump Administration *Is Sidelining Science Advisory Committees*

> The Trump administration's sidelining of scientific advice is considerably more widespread than previously recognized.

Traditionally, independent experts inform national policymaking by advising the federal government on a wide range of scientific and technical issues. The work that federal agencies do to protect public health such as monitoring pollution, evaluating chemical hazards, preventing the spread of disease, tracking and managing natural disasters and enforcing laws like the Clean Air Act depends on scientific input. There are more than 1,000 federal advisory committees across the government, over 200 of which provide advice specifically on scientific and technical issues. Committee members ensure that agencies rely on the best available science, playing a crucial role in the government's scientific process.

However, a Union of Concerned Scientists (UCS) analysis finds that the Trump administration in its first year has neglected science advisory committees that play critical roles, diminished activity at committees in many agencies, and changed committees' membership in ways that tilt toward increased representation of industry interests and decreased representation of the public interest. Analyzing data from 73 committees across 24 departments, agencies, and subagencies this research confirms troubling trends away from evidence-based decisionmaking. Drops in membership and number of meetings of the analyzed advisory committees during President Trump's first year in office represent a greater loss of activity than in the first years of two previous administrations. With independent and informed science advice in the government as crucial as ever, all voices must continue raising the political price of sidelining science.

Concerned Scientists

FIND THIS DOCUMENT AND APPENDICES ONLINE: www.ucsusa.org/scienceadvice

The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with people across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

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